

**BOBBY JINDAL**  
GOVERNOR



**HAROLD LEGGETT, PH.D.**  
SECRETARY

**State of Louisiana**  
**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**ENVIRONMENTAL SERVICES**

Certified Mail No.

Activity No.: PER20090006  
Agency Interest No. 6164

Mr. Wayne P. Smith II  
Environmental Health & Safety Manager  
Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)  
PO Box 2449  
Sulphur, LA 70664-2449

RE: Part 70 Operating Permit Renewal/Modification  
Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)  
Sulphur, Calcasieu Parish, Louisiana

Dear Mr. Smith:

This is to inform you that the permit renewal/modification for the above referenced facility has been approved under LAC 33:III.501. The permit is both a state preconstruction and Part 70 Operating Permit. The submittal was approved on the basis of the emissions reported and the approval in no way guarantees the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operations begin. The synopsis, data sheets and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly operated and maintained as specified in the application.

Operation of this facility is hereby authorized under the terms and conditions of this permit. This authorization shall expire at midnight on the \_\_\_\_\_ of \_\_\_\_\_, 2014, unless a timely and complete renewal application has been submitted six months prior to expiration. Terms and conditions of this permit shall remain in effect until such time as the permitting authority takes final action on the application for permit renewal. The permit number and agency interest number cited above should be referenced in future correspondence regarding this facility.

Please be advised that pursuant to provisions of the Environmental Quality Act and the Administrative Procedure Act, the Department may initiate review of a permit during its term. However, before it takes any action to modify, suspend or revoke a permit, the Department shall, in accordance with applicable statutes and regulations, notify the permittee by mail of the facts or operational conduct that warrant the intended action and provide the permittee with the opportunity to demonstrate compliance with all lawful requirements for the retention of the effective permit.

Done this \_\_\_\_\_ day of \_\_\_\_\_, 2009.

Permit No.: 0520-00145-V5

Sincerely,

Cheryl Sonnier Nolan  
Assistant Secretary  
CSN:dhb  
c: EPA Region VI

**AIR PERMIT BRIEFING SHEET  
AIR PERMITS DIVISION  
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**

**Agency Interest No.: 6164**

**Westlake Petrochemicals LLC**

**Sulphur, Calcasieu Parish, Louisiana**

**I. Background**

Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II), an existing ethylene manufacturing facility, began operation in 1990. The Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II) currently operates under Permit No. 0520-00145-V5, issued January 29<sup>th</sup>, 2010, PSD-LA-554(M3), issued March 12, 2004, and PSD-LA-595(M2), issued February 4<sup>th</sup>, 2005.

This is the Part 70 operating permit renewal for the facility.

**II. Origin**

A permit application and Emission Inventory Questionnaire were submitted by Westlake Petrochemicals LLC on July 31, 2009 requesting a Part 70 operating permit renewal/modification. An addendum dated October 9, 2009 was also received. Also, during review of this renewal application, a minor modification 0520-00145-V5 was submitted on January 21, 2010 and approved on January 29, 2010.

**III. Description**

The Westlake Ethylene Manufacturing Complex consists of two units, Petro 1 and Petro 2. Each unit can operate independently. However, when both are running, synergies between the two units are utilized to optimize ethylene production. The current permitted capacities for each unit are 1.5 billion pounds of ethylene per year for Petro 1, and 1.61 billion pounds of ethylene per year for Petro 2, for a combined facility-wide capacity of 3.11 billion pounds of ethylene per year.

The Petro 1 unit has six M.W. Kellogg millisecond furnaces, one ABB Lummus Furnace, two supplemental steam boilers, a wastewater treatment system, and corresponding process equipment. The furnaces crack fresh and recycled ethane propane feedstock and also generate 1500 psig steam. The efficiency of the furnaces is increased by mixing the feed with steam to lower the hydrocarbon's partial pressure. The emissions from the Kellogg burners are routed to a decoking drum, which has a two-stage cyclone separator to remove coke particles. The Lummus furnace decokes directly into its respective firebox.

The cracked gases exit the furnaces to be quenched in the primary quench exchangers to stop the cracking reaction. The cracked gases are then cooled further in the water-wash tower. Light oil is condensed and recovered as a fuel oil by-product (py oil).

**AIR PERMIT BRIEFING SHEET  
AIR PERMITS DIVISION  
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**

**Agency Interest No.: 6164**

**Westlake Petrochemicals LLC**

**Sulphur, Calcasieu Parish, Louisiana**

After quenching, the gases are compressed in a series of centrifugal compression stages. Water and heavier hydrocarbons are condensed and recovered in compressor knockout drums. The compressed gas is then cooled and dried before being chilled in a demethanizer feed system where feed chilling, prefractionation, and hydrogen recovery are accomplished. The majority of the hydrogen rich stream from the final low temperature flash drum is delivered as product to the neighboring Citgo refinery while the remainder is used as fuel gas in the furnaces. The light hydrocarbon that was condensed in the demethanizer feed chilling train is separated by distillation in the demethanizer to produce a methane overhead stream and a C2 and heavier bottoms stream. The overhead stream is then expanded in a turbo expander to enhance its refrigeration value in the chilling train.

The C2 and heavier bottoms stream from the demethanizer is transferred to the deethanizer for separation of C2s from C3s and heavier hydrocarbons. The overhead vapor products are passed through the acetylene converter where acetylene is hydrogenated to ethane and ethylene. The ethane and ethylene are then separated by distillation. The ethane in the bottoms stream is vaporized and recycled to the furnaces for reprocessing. Polymer grade ethylene product is removed as a liquid and pumped by pipeline to users.

Utility supports for Petro 1 include a cooling tower, ethylene and propylene refrigeration systems, boiler feedwater treatment, steam generators, and a wastewater treatment plant that includes oil separation, steam stripping, and bio-treatment of wastewater prior to discharge.

The Petro 2 unit consists of five ABB Lummus Furnaces along with two supplemental steam boilers, a wastewater treatment system, and corresponding process equipment. Additionally, natural gasoline can be used for a feedstock to Petro 2, per previous approval, but has not been utilized to date due to changing economics.

The process in the Petro 2 unit is much the same as the Petro 1 unit, with only specific equipment differences. The Petro 2 unit also differs from Petro 1 in the back end, where the bottoms stream of the Petro 2 deethanizer and the bottoms stream of the Petro 1 deethanizer are combined and sent either to a flare or to a depropanizer. The overhead products from the depropanizer are passed through the methyl acetylene propadiene (MAPD) converter where the MAPD is converted to propane and propylene. The propane and propylene are routed through a C3 splitter for separation into commercial grade propylene and propane. The overhead product (propane) is recycled to the furnaces, while the bottoms products are sent to a debutanizer. The debutanizer overheads can either be sold as crude butadiene co-products or can be hydrogenated and routed back to the furnaces. The debutanizer bottoms are sold as pyrolysis gasoline co-product.

**AIR PERMIT BRIEFING SHEET  
AIR PERMITS DIVISION  
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**

**Agency Interest No.: 6164**

**Westlake Petrochemicals LLC**

**Sulphur, Calcasieu Parish, Louisiana**

Utility supports at Petro 2 include a cooling tower, methane, ethane, and propylene refrigeration systems, boiler feedwater treatment, steam generators, and a complete wastewater plant that includes oil separation, steam stripping, and bio-treatment of wastewater prior to discharge.

This is the Part 70 renewal permit for the Westlake Petrochemicals LLC Ethylene Manufacturing Complex. This renewal reconciles as-built changes associated with the NO<sub>x</sub> emission reductions as part of the Petro 1 Furnace Modernization Project as well as incorporates Petro 2 furnace NO<sub>x</sub> emission reductions. Additionally, this permit accomplishes several reconciliations based on more recent source specific data and the Notifications as applicable that have been approved since issuance of the current permit. These include:

- Removing Ethylene Furnace 6 (WPT1-04) from the permitted equipment (the furnace was never built).
- Updating emissions from the Thermal Oxidizer that are a result of the change of facility emissions.
- Updating emissions for the Flare (WPT11-96). The previous emissions included a typographical error and an inadvertent omission of a hydrogen stream.
- Updating emissions for the Co Products Flare (30-94). The previous emissions included a typographical error.
- Correcting the emission estimate for Cooling Tower PA-1501 (WPT8-96). Previous emissions were incorrectly based on a cooling tower with four cells, instead of the five cells it actually has.
- Updating emissions for the Converter Regenerator Vent (WPT38-96). VOC emissions are being updated to reflect more recent data.
- Correcting emission estimates for the Py-Gas Storage Tank (WPT34-96) and Pyrolysis Gasoline Storage Tank (WPT3-04). Previously the emissions from these tanks were switched.

As per the addendum from Westlake Petrochemicals, LLC, received by LDEQ on October 9, 2009, this permit also accomplishes the following:

- Removing the Petro 1 and Petro 2 Wastewater pumps.
- Moving the Metering Skids vent stream from the Flare (EPN 10-89) to the Co-Products Flare (EPN 30-94) as the Metering Skids were always routed to the Co-Products Flare and correcting the calculations of both flares accordingly
- Removing the Tank WPT1-03 vent stream from the Co-Products flare as the tank was never built.
- Incorporating Pipeline Maintenance, which includes monthly flow meter calibrations, as

**AIR PERMIT BRIEFING SHEET**  
**AIR PERMITS DIVISION**  
**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Agency Interest No.: 6164**  
**Westlake Petrochemicals LLC**  
**Sulphur, Calcasieu Parish, Louisiana**

a General Condition XVII activity.

This permit also incorporates the following changes made in the minor modification Permit No. 0520-00145-V5, approved on January 29, 2010:

- Adding Ethylene Furnace 6 (EQT105, EPN: WPT1-10) with the Petro 2 Expansion project
- Updating emissions for the Ground Flare (WPT35-98) due to increases in wastewater flow related to the Petro 2 expansion.

Estimated emissions in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM <sub>10</sub>	81.45	81.45	-
SO <sub>2</sub>	30.64	30.64	-
NO <sub>x</sub>	1266.92	1266.90	-0.02
CO	475.50	475.38	-0.12
VOC *	197.05	197.83	+0.78

**\*VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):**

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
1,1,1-trichloroethane	<0.01	<0.01	-
1,3-butadiene	10.92	10.94	+0.02
Acetaldehyde	0.01	0.01	-
Acrolein	0.01	0.01	-
Benzene	5.48	5.49	+0.01
Bromoform	0.16	0.17	+0.01
Chloroform	0.10	0.10	-
Chromium VI (and compounds)	0.001	0.001	-
Ethylbenzene	0.16	0.16	-
Formaldehyde	0.17	0.17	-

**AIR PERMIT BRIEFING SHEET**  
**AIR PERMITS DIVISION**  
**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**

**Agency Interest No.: 6164**

**Westlake Petrochemicals LLC**

**Sulphur, Calcasieu Parish, Louisiana**

**\*VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):**

Pollutant	Before	After	Change
n-Hexane	0.23	0.23	-
Hydrogen Sulfide	-	<0.01	-
Manganese (and compounds)	0.001	0.001	-
Methyl Tert-Butyl Ether	-	0.12	+0.12
Naphthalene	0.68	0.68	-
Nickel (and compounds)	0.001	0.001	-
Styrene	0.59	0.58	-0.01
Sulfuric Acid	0.01	<0.01	-0.01
Toluene	0.95	0.92	-0.03
Xylene (mixed isomers)	0.05	0.05	-
Zinc (and compounds)	0.001	0.001	-
Aldehydes	-	0.02	+0.02
Total	19.52	19.65	+0.13

Other VOC (TPY): 178.18

**IV. Type of Review**

This permit was reviewed for compliance with 40 CFR 70, the Louisiana Air Quality Regulations, New Source Performance Standards (NSPS), and National Emission Standards for Hazardous Air Pollutants (NESHAP). Prevention of Significant Deterioration (PSD) does not apply.

This facility is a major source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51.

**AIR PERMIT BRIEFING SHEET  
AIR PERMITS DIVISION  
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**

**Agency Interest No.: 6164**

**Westlake Petrochemicals LLC**

**Sulphur, Calcasieu Parish, Louisiana**

**V. Credible Evidence**

Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit that state specific methods that may be used to assess compliance with applicable requirements, pursuant to 40 CFR Part 70 and EPA's Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997), any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed shall be considered for purposes of Title V compliance certifications. Furthermore, for purposes of establishing whether or not a person has violated or is in violation of any emissions limitation or standard or permit condition, nothing in this permit shall preclude the use, including the exclusive use, by any person of any such credible evidence or information.

**VI. Public Notice**

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, on \_\_\_\_\_, 200\_\_\_\_\_, and in the \_\_\_\_\_ <local paper>, \_\_\_\_\_ <local town>, on \_\_\_\_\_ <date>, 200\_\_\_\_\_. A copy of the public notice was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List on \_\_\_\_\_ <date>. The draft permit was also submitted to US EPA Region VI on \_\_\_\_\_ <date>. All comments will be considered prior to the final permit decision.

**VII. Effects on Ambient Air**

Emissions associated with the proposed permit renewal were reviewed by the Air Quality Assessment Division to ensure compliance with the NAAQS and AAS.

Dispersion Model(s) Used: ISCST3

Pollutant	Time Period	Calculated Maximum Ground Level Concentration	Louisiana Toxic Air Pollutant Ambient Air Quality Standard or (National Ambient Air Quality Standard (NAAQS))
1,3-Butadiene	Annual	0.79	0.92
Benzene	Annual	5.7	12

**AIR PERMIT BRIEFING SHEET**  
**AIR PERMITS DIVISION**  
**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**

Agency Interest No.: 6164

Westlake Petrochemicals LLC

Sulphur, Calcasieu Parish, Louisiana

**VIII. General Condition XVII Activities**

Work Activity	Schedule	Emission Rates - tons				
		PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>X</sub>	CO	VOC
Heat Exchanger Cleaning						0.17
Vessel Clean Opening and Cleanout						0.34
Pump Maintenance						0.02
Sludge Removal from Sumps						0.10
Filter/Strainer Cleaning or Changeout						0.11
Liquid Material Transfer in Buckets						0.02
Process Sampling						<0.01
Vacuum Truck Transfers						0.51
Frac Tank and Vacuum Truck Cleanout						0.95
Tank Hatch Opening						<0.01
Diesel Engines		0.08	0.08	1.21	0.26	0.10
Hydrostatic Line Testing				0.41	2.22	1.50
Pipeline Maintenance						0.60

**AIR PERMIT BRIEFING SHEET  
AIR PERMITS DIVISION  
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Agency Interest No.: 6164**  
**Westlake Petrochemicals LLC**  
**Sulphur, Calcasieu Parish, Louisiana**

**IX. Insignificant Activities**

ID No.:	Description	Physical/Operating Data	Citation
IA-16	Soap for Padwash Tank	100 gal	LAC 33:III.501.B.5.A.10
IA-2	20-89 DAF Sludge Tank (Day Tank)	588 gal	LAC 33:III.501.B.5.A.3
IA-20	Laboratory Vents		LAC 33:III.501.B.5.A.6
IA-27	WPT29-96 Diesel Tank (for Emergency Generator)	520 gal	LAC 33:III.501.B.5.A.3
IA-28	WPT30-96 Diesel Tank (for Firewater Pump)	520 gal	LAC 33:III.501.B.5.A.3
IA-3	21-89 Diesel Tank for Emergency Generator	100 gal	LAC 33:III.501.B.5.A.3
IA-30	WPT-35-96 Petro II Analyzers	N/A	LAC 33:III.501.B.5.A.9
IA-31	WPT37-96 Portable Moisture Analyzers – Petro II (vents only during sampling)		LAC 33:III.501.B.5.A.9
IA-32	WPT39-96 Lube Oil Seal Pots		LAC 33:III.501.B.5.A.3
IA-37	Laboratory Vents		LAC 33:III.501.B.5.A.6
IA-4	22-89 Diesel Tank for Firewater Pump	100 gal	LAC 33:III.501.B.5.A.3
IA-5	23-89 Lube Oil Tank	2,900 gal	LAC 33:III.501.B.5.A.3
IA-6	24-89 Lube Oil Tank	2,900 gal	LAC 33:III.501.B.5.A.3
IA-7	26-89 Filming Amine Tank	300 gal	LAC 33:III.501.B.5.A.3
IA-8	27-89 Neutralizing Amine Tank	300 gal	LAC 33:III.501.B.5.A.3
IA-38	Diesel Storage Tank #1	10,000 gal	LAC 33:III.501.B.5.A.3
IA-39	Diesel Storage Tank #2	10,000 gal	LAC 33:III.501.B.5.A.3
IA-40	Temporary Portable Boiler 1	5 MMBtu/hr	LAC 33:III.501.B.5.D
IA-41	Temporary Portable Boiler 2	1.5 MMBtu/hr	LAC 33:III.501.B.5.D

## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Ethylene Manufacturing Complex (Petro I/Petro II)  
 Agency Interest No.: 6164  
 Westlake Petrochemicals LLC  
 Sulphur Calcasieu Parish, Louisiana

X. Table 1. Applicable Louisiana Requirements

ID No.:	Description	LAC 33:III.Chapter																		
		5▲	509	6	9	11	13	15	21	2107	2111	2113	2115	22	23	29*	51*	53*	56	59*
UNF1	Westlake Ethylene Manufacturing Complex			1	1	1											1	1	1	1
EQT64	WPT2-04 PFO Loading Activities									3										1
EQT62	WPT3-04 Pyrolysis Gasoline Storage Tank										1									1
EQT63	WPT4-04 PFO Storage Tank										3									1
EQT98	WPT1-08 GAS-TK										1									1
EQT105	WPT1-10 Ethylene Furnace 6										1	1	3							1
EQT47	WPT10-96 Diesel Firewater Pumps										1	1	3							2
EQT48	WPT11-96 Flare (PA-2201)										1	1	3							1
FUG04	WPT12-96 Fugitive Hydrocarbon Emissions (Petro II Equipment Leaks)											1	1	1						1
EQT49	WPT15-96 Propanol Storage Tanks (FA-2101)													3						3
EQT38	WPT1-96 ABB Lummus Furnace (BA-101)										1	1	3							2
EQT57	WPT20-96 Sulfuric Acid Storage Day Tank													3						1

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylen Manufacturing Complex (Petro I/Petro II)**

**Agency Interest No.: 6164**

**Westlake Petrochemicals LLC**

**Sulphur Calcasieu Parish, Louisiana**

**X. Table 1. Applicable Louisiana Requirements**

ID No.:	Description	LAC 33:III Chapter																		
		5▲	509	6	9	11	13	15	21	2107	2111	2113	2115	22	23	29*	51*	53*	56	59*
EQT50	WPT24-96 Stormwater Holding Tank (FB-1807)									2								1		
EQT58	WPT26-96 WW Acid Day Tank										3							1		
EQT59	WPT28-96 93% Acid Storage Tank										3							1		
EQT39	WPT2-96 ABB Lummus Furnace (BA-102)	1								1	1	3						2		
EQT51	WPT34-96 Py-Gas Storage Tank (TK-103)									1								1		
EQT52	WPT36-96 Cracking Tar Drum (36-96)									3								1		
EQT54	WPT38-96 Converter Regenerator Vent (38-96)										2							1		
EQT40	WPT3-96 ABB Lummus Furnace (BA-103)	1								1	1	3						2		
EQT41	WPT4-96 ABB Lummus Furnace (BA-104)	1								1	1	3						2		
EQT42	WPT5-96 ABB Lummus Furnace (BA-105)	1								1	1	3						2		
EQT45	WPT8-96 Cooling Tower (PA-1501)	1									2							1		
EQT53	WPT35-98 Ground Flare (35-98)									1	3							1		
EQT60	I-04 Sulfuric Acid Day Tank											3						1		

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Agency Interest No.: 6164**  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**X. Table 1. Applicable Louisiana Requirements**

ID No.:	Description	LAC 33:III.Chapter																		
		5▲	509	6	9	11	13	15	21	2107	2111	2113	2115	22	23	29*	51*	53*	56	59*
EQT18	1-89A Millisecond Furnace (1001B)	1				1	1	3												
EQT19	1-89B Millisecond Furnace (1002B)	1				1	1	3												
EQT20	1-89C Millisecond Furnace (1003B)	1				1	1	3												
EQT21	1-89D Millisecond Furnace (1004B)	1				1	1	3												
EQT22	1-89E Millisecond Furnace (1005B)	1				1	1	3												
EQT23	1-89F Millisecond Furnace (1006B)	1				1	1	3												
EQT36	1-95 Pyrolysis Furnace (ABB Lummus)	1				1	1	3												
EQT24	2-89 Zurn Steam Boiler (No. 1)	1				1	1	3												
EQT25	4-89 Decoking Drum (4-89)					1														
FUG03	5-89 Fugitives (Petro I Equip Leaks)						1		1											
EQT26	6-89 Cooling Tower (6-89)	1				2														
EQT27	7-89 Oil/Water Separator (CPI)						2													
EQT28	8-89 Emergency Generator (8-89)	1				1	1	3												
EQT37	9-01 Thermal Oxidizer (9-01)					1	1	3												

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

Ethylene Manufacturing Complex (Petro I/Petro II)

Agency Interest No.: 6164  
Westlake Petrochemicals LLC

Sulphur Calcasieu Parish, Louisiana

**X. Table 1. Applicable Louisiana Requirements**

ID No.:	Description	LAC 33:III:Chapter																	
		5 ▲	509	6	9	11	13	15	21	2107	2111	2113	2115	22	23	29*	51*	53*	56
EQT29	9-89 Diesel Firewater Pump (9-89)	1				1	1	3									2		
EQT30	10-89 Flare (10-89)	1				1		3									1		
EQT55	12-89 Compressor Wash Oil Tank																		
EQT31	29-89 Propanol Storage Tank (28-89)								3								3		
EQT56	30-89 93% Sulfuric Acid Tank								3								1		
EQT35	30-94 Co-Products Flare (30-94)	1						1		3							1		
EQT17	31-85 Zum Steam Boiler (No. 2)	1						1	1	3							2		
EQT32	42-89 Temporary Oil Sludge Storage Vessels(Frac Tanks)									2							1		
EQT33	43-89 Temporary Wastewater Storage Vessels(Frac Tanks)									2							1		
EQT34	44-89 Petro I Analyzers (44-89)									3							1		
GRP04	WPT5-04 Petro II Boilers A and B Scrubber Emissions Cap																		
GRP05	1-09 NO <sub>x</sub> Cap																		
EQT43	WPT6-96 Boiler (A)	1							1	1	1						2		
EQT44	WPT7-96 Boiler (B)	1							1	1	1						2		

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Agency Interest No.: 6164**  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**X. Table 1. Applicable Louisiana Requirements**

ID No.:	Description	LAC 33:III.Chapter																		
		5*	509	6	9	11	13	15	21	207	2111	2113	2115	22	23	29*	51*	53*	56	59*
EQT101	CNTLVENT 3301E Demethanizer Tower Vent								2											
EQT102	CNTLVENT OSPS Oily Sludge Processing System																			1
EQT103	CNTLVENT Propylene Railcar Loading								1											
EQT88	WPT13-96 CPI Oil/Water Separator								1											
EQT89	WPT14-96 CPI Oil/Water Separator								1											
EQT90	WPT21-96 Spent Caustic Tank FB-1702								1											
EQT91	WPT22-96 Water Equalization Tank FB-1803								1											
EQT92	WPT23-96 IGF Effluent Tank FB-1806								1											
EQT93	WPT31-96 Pyrolysis Gasoline Storage Tank FB-2103								1											
EQT104	CNTLVENT DA-301 Demethanizer Tower Vent								2											
EQT77	1-01 Process Equalization Tank 8465F									2										
EQT78	4-01 Oily Sludge Tank 8404F3									2										

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**

Agency Interest No.: 6164  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**X. Table 1. Applicable Louisiana Requirements**

ID No.:	Description	LAC 33:III Chapter																		
		5▲	509	6	9	11	13	15	21	2107	2111	2113	2115	22	23	29*	51*	53*	56	59*
EQT79	5-01 Oily Sludge Tank 8404F4									2						1				
EQT80	6-01 Oily Sludge Tank 8480									2						1				
EQT81	7-01 CPI8702L-A and B									1						1				
EQT82	8-01 IGF 8718L									2						1				
EQT65	11-89 Caustic Scrubber									2						1				
EQT66	13-89 Spent Caustic Tank 5407F									1						1				
EQT67	15-89 Pyrolysis Oil Storage Tank 8405F									3						1				
EQT68	16-89 Slop Oil Tank 8401F1									2						1				
EQT69	17-89 Slop Oil Tank 8401F2									2						1				
EQT70	18-89 CPI Sludge Tank 8404F1									3						1				
EQT71	19-89 CPI Sludge Tank 8404F2									3						1				
EQT72	35-89 S. W. Equalization Tank									3						1				
EQT73	36-89 Retention/Equalization Tank 8460F									2						1				
EQT74	37-89 Tar Tank 6411F									2						1				
EQT75	39-89 Metering Skids									1						3				
EQT76	41-89 Py Oil Loading									3						1				

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**

Agency Interest No.: 6164

Westlake Petrochemicals LLC

Sulphur Calcasieu Parish, Louisiana

- \* The regulations indicated above are State Only regulations.
- ▲ All LAC 33:III Chapter 5 citations are federally enforceable including LAC 33:III.501.C.6 citations, except when the requirement found in the "Specific Requirements" report specifically states that the regulation is State Only.

**KEY TO MATRIX**

- 1 .The regulations have applicable requirements that apply to this particular emission source.  
-The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
- 2 .The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
- 3 .The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.  
Blank – The regulations clearly do not apply to this type of emission source.

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylenne Manufacturing Complex (Petro I/Petro II)**

Agency Interest No.: 6164  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**X. Table 1. Applicable Federal Air Quality Requirements**

ID No.:	Description	40 CFR 60 NSPS							40 CFR 61			40 CFR 63 NESHPAP			40 CFR							
		A	K	Ka	Kb	Db	VV	NNN	RRR	HII	A	J	V	FF	A	F	Q	VV	YY	64	68	82
UNFI	Westlake Ethylene Manufacturing Complex	1									1			1			1		1	1	1	
EQT64	WPT2-04 PFO Loading Activities																			1		
EQT62	WPT3-04 Pyrolysis Gasoline Storage Tank									2										1		
EQT63	WPT4-04 PFO Storage Tank										3									1		
EQT98	WPT1-08 GAS-TK										3											
EQT105	WPT1-10 Ethylene Furnace 6													2						2		
EQT47	WPT10-96 Diesel Firewater Pumps																					
EQT48	WPT11-96 Flare (PA-2201)	1															1	1		1	2	
FUG04	WPT12-96 Fugitive Hydrocarbon Emissions (Petro II Equipment Leaks)											1			1	1				1		
EQT49	WPT15-96 Propanol Storage Tanks (FA-2101)																			3		
EQT38	WPT1-96 ABB Lummus Furnace (BA-101)													2						2		
EQT57	WPT20-96 Sulfuric Acid Storage Day Tank											3								3		
EQT50	WPT24-96 Stormwater Holding Tank (EB-1807)											3						2		1		
EQT58	WPT26-96 WW Acid Day Tank											3								3		

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Agency Interest No.: 6164**  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**X. Table 1. Applicable Federal Air Quality Requirements**

ID No.:	Description	40 CFR 60 NSPS						40 CFR 61						40 CFR 63 NESHAP						40 CFR						
		A	K	Ka	Kb	Db	VV	NNN	RRR	III	A	J	V	FF	A	F	Q	VV	YY	64	68	82				
EQT59	WPT28-96 93% Acid Storage Tank																									
EQT39	WPT2-96 ABB Lummus Furnace (BA-102)																									
EQT51	WPT34-96 Py-Gas Storage Tank (TK-103)																									
EQT52	WPT36-96 Cracking Tar Drum (36-96)																									
EQT54	WPT38-96 Converter Regenerator Vent (38-96)																									
EQT40	WPT3-96 ABB Lummus Furnace (BA-103)																									
EQT41	WPT4-96 ABB Lummus Furnace (BA-104)																									
EQT42	WPT5-96 ABB Lummus Furnace (BA-105)																									
EQT45	WPT8-96 Cooling Tower (PA-1501)																									
EQT53	WPT35-98 Ground Flare (35-98)	1																								
EQT60	1-04 Sulfuric Acid Day Tank																									
EQT18	1-89A Millisecond Furnace (1001B)																									
EQT19	1-89B Millisecond Furnace (1002B)																									
EQT20	1-89C Millisecond Furnace (1003B)																									
EQT21	1-89D Millisecond Furnace (1004B)																									
EQT22	1-89E Millisecond Furnace (1005B)																									

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**

Agency Interest No.: 6164  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**X. Table 1. Applicable Federal Air Quality Requirements**

ID No.:	Description	40 CFR 60 NSPS							40 CFR 61			40 CFR 63 NESHAP			40 CFR						
		A	K	Ka	Kb	Db	VV	NNN	RRR	III	A	J	V	FF	A	F	Q	VV	YY	64	68
EQT23	1-89F Millisecond Furnace (1006B)									2									2		
EQT36	1-95 Pyrolysis Furnace (ABB Lummus)									2									2		
EQT24	2-89 Zum Steam Boiler (No. 1)									1											
EQT25	4-89 Decoking Drum (4-89)																				
FUG03	5-89 Fugitives (Petro I Equip Leaks)									1					1	1			1		
EQT26	6-89 Cooling Tower (6-89)																	3		1	
EQT27	7-89 Oil/Water Separator (CPI)																		1		
EQT28	8-89 Emergency Generator (8-89)																				
EQT37	9-01 Thermal Oxidizer (9-01)																		1	1	
EQT29	9-89 Diesel Firewater Pump (9-89)																				
EQT30	10-89 Flare (10-89)	1																	1	2	
EQT55	12-89 Compressor Wash Oil Tank																				
EQT31	29-89 Propanol Storage Tank (28-89)										3									3	
EQT56	30-89 93% Sulfuric Acid Tank										3									3	
EQT35	30-94 Co-Products Flare (30-94)																		1	2	
EQT17	31-85 Zum Steam Boiler (No. 2)										1										

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Agency Interest No.: 6164**  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**X. Table 1. Applicable Federal Air Quality Requirements**

ID No.:	Description	40 CFR 60 NSPS						40 CFR 61						40 CFR 63 NESHAP						40 CFR						
		A	K	Ka	Kb	Db	VV	NNN	RRR	III	A	J	V	FF	A	F	Q	VV	YY	64	68	82				
EQT32	42-89 Temporary Oil Sludge Storage Vessels (Frac Tanks)				3																					
EQT33	43-89 Temporary Wastewater Storage Vessels (Frac Tanks)				3												2									1
EQT34	44-89 Petro I Analyzers (44-89)																2									1
GRP04	WPT5-04 Petro II Boilers A and B Scrubber Emissions Cap																									3
GRP05	1-09 NO <sub>x</sub> Cap																									
EQT43	WPT6-96 Boiler (A)			1																						
EQT44	WPT7-96 Boiler (B)			1																						
EQT101	CNTLVENT 3301E Demethanizer Tower Vent									1										1						
EQT102	CNTLVENT OSPS Oily Sludge Processing System																	2								1
EQT103	CNTLVENT Propylene Railcar Loading																									
EQT88	WPT13-96 CPI Oil/Water Separator			3																2						1
EQT89	WPT14-96 CPI Oil/Water Separator			3																2						1
EQT90	WPT21-96 Spent Caustic Tank FB-1702			1																2						1

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**

Agency Interest No.: 6164  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**X. Table 1. Applicable Federal Air Quality Requirements**

ID No.:	Description	40 CFR 60 NSPS								40 CFR 61				40 CFR 63 NESHAP				40 CFR				
		A	K	Ka	Kb	Db	VV	NNN	RRR	III	A	J	V	FF	A	F	Q	VV	YY	64	68	82
EQT91	WPT22-96 Water Equalization Tank FB-1803				1									2				1				
EQT92	WPT23-96 IGF Effluent Tank FB-1806						3							2				1				
EQT93	WPT31-96 Pyrolysis Gasoline Storage Tank FB-2103				2													1				
EQT104	CNTL VENT DA-301 Demethanizer Tower Vent									1					2				1			
EQT77	1-01 Process Equalization Tank 8465F						1							2				1				
EQT78	4-01 Oily Sludge Tank 8404F3						3							2				1				
EQT79	5-01 Oily Sludge Tank 8404F4						3							2				1				
EQT80	6-01 Oily Sludge Tank 8480						1							2				1				
EQT81	7-01 CPI8702L-A and B													2				1				
EQT82	8-01 IGF 8718L						3							2				1				
EQT85	11-89 Caustic Scrubber													2				1				
EQT66	13-89 Spent Caustic Tank 5407F													2				1				
EQT67	15-89 Pyrolysis Oil Storage Tank 8405F																	1				
EQT68	16-89 Slop Oil Tank 8401F1													2				1				
EQT69	17-89 Slop Oil Tank 8401F2													2				1				
EQT70	18-89 CPI Sludge Tank 8401F1													3				1				

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Agency Interest No.: 6164**  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**X. Table 1. Applicable Federal Air Quality Requirements**

ID No.:	Description	40 CFR 60 NSPS										40 CFR 61				40 CFR 63 NESHPAP				40 CFR			
		A	K	Ka	Kb	Db	VV	NNN	RRR	III	A	J	V	FF	A	F	Q	VV	YY	64	68	82	
EQT71	19-89 CPI Sludge Tank 8404F2																						
EQT72	35-89 S.W. Equalization Tank																						
EQT73	36-89 Retention Equalization Tank 8460F																						
EQT74	37-89 Tar Tank 6411F																						
EQT75	39-89 Metering Skids																						
EQT76	41-89 Py Oil Loading																						

**KEY TO MATRIX**

- 1 -The regulations have applicable requirements that apply to this particular emission source.  
 -The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
- 2 -The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
- 3 -The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.  
 Blank - The regulations clearly do not apply to this type of emission source.

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**

**Agency Interest No.: 6164**  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

ID No:	Requirement	Notes
EQT64 Loading Losses	LAC 33:III.21	DOES NOT APPLY. VOCs loaded have a TVP <1.5 psia (LAC 33:III.2107)
EQT62, EQT51. EQT93 Pyrolysis Gasoline Tank	40 CFR 60 Subpart Kb	EXEMPT. After the compliance dates specified in 40 CFR 63.1102, a storage vessel that must be controlled according to the requirements of this subpart and subpart Ka or Kb of 40 CFR 60 CFR 63.1100(g)(1)(ii)
EQT63 PFO Storage Tank	40 CFR 60 Subpart Kb	DOES NOT APPLY. Tank capacity is >40,000 gallons and its partial pressure of VOCs is <0.51 psia
	LAC 33:III.21	DOES NOT APPLY. The vapor pressure of the liquid at storage conditions is <1.5 psia
EQT98 Gasoline Tank	40 CFR 60 Subpart Kb	DOES NOT APPLY. Tank capacity is <19,813 gallons.
EQT47 Diesel Firewater Pump	40 CFR 60 Subpart III	DOES NOT APPLY - This subpart applies to owners/operators of stationary internal combustion engines that are ordered after July 11, 2005 and is modified, reconstructed, or built after April 1, 2006. The engine was built prior to 2006 and, therefore, this rule is not applicable. (40 CFR 60.4200)
	40 CFR 63 Subpart ZZZZ	DOES NOT APPLY. Regulation applies to Major Source of HAPs but this specific stationary RICE unit is an existing stationary compression ignition RICE; per 40 CFR 63.6590(b)(3) unit does not have to meet the requirements of this regulation or 40 CFR 63 Subpart A. No initial notification is required.

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Agency Interest No.: 6164**  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

EQT47 Diesel Firewater Pump	LAC 33:III.15	DOES NOT APPLY. This combustion source emits < 5 tpy SO <sub>2</sub> . (LAC 33:III.1502.A.3)
	LAC 33:III.51	EXEMPT: Emissions from combustion sources burning Group 1 virgin fossil fuels are currently exempt from the requirements of Chapter 51 per LAC 33:III.5105(B)(3)(a)
EQT48 Flare		EXEMPT. The flare is used as a control device to achieve compliance with an emission limitation or standard. However, the sources routed to the flare are exempt from CAM requirements because they are subject to an emissions limitation or standard, specifically 40 CFR 61 Subpart FF and 40 CFR 63 Subpart YY, which was proposed after November 15, 1990. (40 CFR 64)
	LAC 33:III.15	DOES NOT APPLY. This combustion source emits < 5 tpy SO <sub>2</sub> . (LAC 33:III.1502.A.3)
EQT49, EQT31 Propanol Storage Tank	40 CFR 60 Subpart Kb 40 CFR 63 Subpart YY	DOES NOT APPLY. Tank capacity is <19,813 gallons. DOES NOT APPLY. This unit is not an affected source category as defined by 40 CFR 63.1103(a) through (h)
	LAC 33:III.21 LAC 33:III.51	DOES NOT APPLY. The vapor pressure of the liquid at storage conditions is <1.5 psia DOES NOT APPLY. This source does not emit any LTAPs.
EQT38 Furnace	40 CFR 60 Subpart RRR 40 CFR 63 Subpart YY	EXEMPT. This source is routed to a distillation unit subject to NSPS Subpart NNN and has no other releases to the atmosphere except pressure relief valves. This source must comply with 40 CFR 60.705(r) only (40 CFR 63.700(c)(5)) EXEMPT. Ethylene cracking furnaces are in the ethylene production source category but all ethylene cracking furnaces, including emissions during decocking operations, are not subject to the requirements of this regulation. (40 CFR 63.1103(e)(1)(ii)(J))

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

Ethylene Manufacturing Complex (Petro I/Petro II)

Agency Interest No.: 6164  
Westlake Petrochemicals LLC

Sulphur Calcasieu Parish, Louisiana

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

EQT38	Furnace	LAC 33:III.15	DOES NOT APPLY. This combustion source emits < 5 tpy SO <sub>2</sub> . (LAC 33:III.1502.A.3.)
EQT57, EQT60, EQT56, EQT58, EQT59	40 CFR 60 Subpart Kb	LAC 33:III.51	EXEMPT: Emissions from combustion sources burning Group 1 virgin fossil fuels are currently exempt from the requirements of Chapter 51 per LAC 33:III.5105(B)(3)(a)
Acid Storage Tanks	40 CFR 63 Subpart YY	40 CFR 63 Subpart YY	DOES NOT APPLY. Tank does not store an organic liquid (LAC 33:III.2103)
EQT50	Stormwater Holding Tank	LAC 33:III.21	DOES NOT APPLY. This unit is not an affected source category as defined by 40 CFR 63.1103(a) through (h)
	40 CFR 60 Subpart Kb	<0.51 psia	DOES NOT APPLY. Tank does not store an organic liquid (LAC 33:III.2103)
			DOES NOT APPLY. Tank capacity is >40,000 gallons and its partial pressure of VOCs is <0.51 psia
			After the compliance date specified in 40 CFR 63.1102, compliance with 40 CFR 63.1103(e) shall constitute compliance with the Benzene Waste Operations NESHAP (40 CFR 61 Subpart FF) for waste streams that are subject to both the control requirements of 40 CFR 63.1103(e)(3) for ethylene production sources and the control requirements of 40 CFR 61 Subpart FF. (40 CFR 63.1100(g)(6)(ii))
		40 CFR 61 Subpart FF	EXEMPT. Any component of a wastewater storage, handling, transfer, or treatment facility that is subject to the wastewater provisions of HON, or 40 CFR 61 Subpart FF (BWON), or 40 CFR 60 Subpart YYYY (SOCMIW) is exempt from the provisions of this regulation.
EQT39	Furnace	LAC 33:III.21	EXEMPT. Ethylene cracking furnaces are in the ethylene production source category but all ethylene cracking furnaces, including emissions during decoking operations, are not subject to the requirements of this regulation. (40 CFR 63.1103(e)(1)(ii)(J))
		40 CFR 63 Subpart YY	

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Agency Interest No.: 6164**  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

EQT39 Furnace	LAC 33:III.15	DOES NOT APPLY. This combustion source emits < 5 tpy SO <sub>2</sub> . (LAC 33:III.1502.A.3)
	LAC 33:III.51	EXEMPT: Emissions from combustion sources burning Group 1 virgin fossil fuels are currently exempt from the requirements of Chapter 51 per LAC 33:III.5105(B)(3)(a)
EQT52 Cracking Tar Drum	40 CFR 60 Subpart Kb	DOES NOT APPLY. Tank capacity is <19,813 gallons. (40 CFR 60.110b(b))
		After the compliance date specified in 40 CFR 63.1102, compliance with 40 CFR 63.1103(e) shall constitute compliance with the Benzene Waste Operations NESHAP (40 CFR 61 Subpart FF) for waste streams that are subject to both the control requirements of 40 CFR 63.1103(e)(3) for ethylene production sources and the control requirements of 40 CFR 61 Subpart FF. (40 CFR 63.1100(g)(6)(ii))
	40 CFR 61 Subpart FF LAC 33:III.21	DOES NOT APPLY. Tank capacity is >250 gallons. (LAC 33:III.2103)
EQT54 Converter Regenerator Vent	40 CFR 63 Subpart YY LAC 33:III.21	DOES NOT APPLY. This unit is not an affected source category as defined by 40 CFR 63.1103(a) through (h)
		EXEMPT. Vent gas stream has a combined weight of VOC <=100 lb (45.4 kg) in any continuous 24-hour period. (LAC 33:III.2115.H.1.c)
EQT40, EQT41, EQT42 Furnace	40 CFR 63 Subpart YY	EXEMPT. Ethylene cracking furnaces are in the ethylene production source category but all ethylene cracking furnaces, including emissions during decocking operations, are not subject to the requirements of this regulation. (40 CFR 63.1103(e)(1)(ii)(J))
	LAC 33:III.15	DOES NOT APPLY. This combustion source emits < 5 tpy SO <sub>2</sub> . (LAC 33:III.1502.A.3)
	LAC 33:III.51	EXEMPT: Emissions from combustion sources burning Group 1 virgin fossil fuels are currently exempt from the requirements of Chapter 51 per LAC 33:III.5105(B)(3)(a)

## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

### Ethylene Manufacturing Complex (Petro I/Petro II)

Agency Interest No.: 6164  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

EQT45 Cooling Tower	40 CFR 63 Subpart Q	DOES NOT APPLY. Chromium-based water treatment chemicals are not used. (40 CFR 63.400)
EOT53 Flare	LAC 33:III.13	EXEMPT. Maintain emissions less than 20% average opacity. These requirements do not apply to a source that does not meet the opacity requirements due only to the presence of uncombined water
EOT18, EQT19, EQT20, EQT21, EQT22, EQT23 Furnaces	40 CFR 64	EXEMPT. The flare is used as a control device to achieve compliance with an emission limitation or standard. However, the sources routed to the flare are exempt from CAM requirements because they are subject to an emissions limitation or standard, specifically 40 CFR 61 Subpart FF and 40 CFR 63 Subpart YY, which was proposed after November 15, 1990. (40 CFR 64)
	40 CFR 60 Subpart RRR	EXEMPT. This source is routed to a distillation unit subject to NSPS Subpart NNN and has no other releases to the atmosphere except pressure relief valves. This source must comply with 40 CFR 60.705(r) only (40 CFR 63.700(c)(5))
	40 CFR 63 Subpart YY	EXEMPT. Ethylene cracking furnaces are in the ethylene production source category but all ethylene cracking furnaces, including emissions during decoking operations, are not subject to the requirements of this regulation. (40 CFR 63.1103(e)(1)(ii)(J))
	LAC 33:III.15	DOES NOT APPLY. This combustion source emits < 5 tpy SO <sub>2</sub> . (LAC 33:III.1502.A.3)
	LAC 33:III.51	EXEMPT: Emissions from combustion sources burning Group 1 virgin fossil fuels are currently exempt from the requirements of Chapter 51 per LAC 33:III.5105(B)(3)(a)
EOT36 Furnace	40 CFR 60 Subpart RRR	EXEMPT. This source is routed to a distillation unit subject to NSPS Subpart NNN and has no other releases to the atmosphere except pressure relief valves. This source must comply with 40 CFR 60.705(r) only (40 CFR 63.700(c)(5))

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro II/Petro II)**  
**Agency Interest No.: 6164**  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

EQT36 Furnace	40 CFR 63 Subpart YY	EXEMPT. Ethylene cracking furnaces are in the ethylene production source category but all ethylene cracking furnaces, including emissions during decoking operations, are not subject to the requirements of this regulation. (40 CFR 63.1103(e)(1)(ii)(J))
LAC 33:III.15		DOES NOT APPLY. This combustion source emits < 5 tpy SO <sub>2</sub> . (LAC 33:III.1502.A.3)
LAC 33:III.51		EXEMPT: Emissions from combustion sources burning Group 1 virgin fossil fuels are currently exempt from the requirements of Chapter 51 per LAC 33:III.5105(B)(3)(a)
EQT24, EQT17 Boilers	40 CFR 63 Subpart DDDDD	DOES NOT APPLY. 40 CFR 63 Subpart DDDDD was vacated by the D.C. Circuit Court in 2007. Under the provisions of this vacated rule, this source was considered an existing large gaseous liquid fuel unit and was only subject to the initial notification requirements.
LAC 33:III.15		DOES NOT APPLY. This combustion source emits < 5 tpy SO <sub>2</sub> . (LAC 33:III.1502.A.3)
LAC 33:III.51		EXEMPT: Emissions from combustion sources burning Group 1 virgin fossil fuels are currently exempt from the requirements of Chapter 51 per LAC 33:III.5105(B)(3)(a)
EQT25 Decoking Drum	LAC 33:III.51	DOES NOT APPLY. This source does not emit a Class I or Class II air toxic pollutant for which total facility-wide emissions exceed the MER. Therefore, no MACT standards are required. (LAC 33:III.5109.A)
EQT26 Cooling Tower	40 CFR 63 Subpart Q	DOES NOT APPLY. Chromium-based water treatment chemicals are not used. (40 CFR 63.400)

## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Ethylenne Manufacturing Complex (Petro I/Petro II)**

**Agency Interest No.: 6164  
Westlake Petrochemicals LLC  
Sulphur Calcasieu Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

EQT26 Cooling Tower	LAC 33:III.13	EXEMPT. Maintain emissions less than 20% average opacity. These requirements do not apply to a source that does not meet the opacity requirements due only to the presence of uncombined water
EOT27 Oil/Water Separator	LAC 33:III.21	EXEMPT. Any component of a wastewater storage, handling, transfer, or treatment facility that is subject to the wastewater provisions of HON, or 40 CFR 61 Subpart FF (BWON), or 40 CFR 60 Subpart YY (SOCMIW) is exempt from the provisions of this regulation. (LAC 33:III.2153.G.6)
EQT28 Emergency Diesel Generator	LAC 33:III.21	EXEMPT. True vapor pressure of volatile organic compounds less than 0.5 psia (3.4 kPa) (LAC 33:III.2109.B.3)
40 CFR 60 Subpart III		DOES NOT APPLY - This subpart applies to owners/operators of stationary internal combustion engines that are ordered after July 11, 2005 and is modified, reconstructed, or built after April 1, 2006. The engine was built prior to 2006 and, therefore, this rule is not applicable. (40 CFR 60.4200)
40 CFR 63 Subpart ZZZZ		DOES NOT APPLY. Regulation applies to Major Source of HAPs but this specific stationary RICE unit is an existing stationary compression ignition RICE; per 40 CFR 63.6590(b)(3) unit does not have to meet the requirements of this regulation or 40 CFR 63 Subpart A. No initial notification is required.
LAC 33:III.15		DOES NOT APPLY. This combustion source emits < 5 tpy SO <sub>2</sub> . (LAC 33:III.1502.A.3)
LAC 33:III.51		EXEMPT: Emissions from combustion sources burning Group 1 virgin fossil fuels are currently exempt from the requirements of Chapter 51 per LAC 33:III.5105(B)(3)(a)

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylen Manufacturing Complex (Petro I/Petro II)**  
 Agency Interest No.: 6164  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

EQT37	Thermal Oxidizer	40 CFR 61 Subpart FF	After the compliance date specified in 40 CFR 63.1102, compliance with 40 CFR63.1103(e) shall constitute compliance with the Benzene Waste Operations NESHAP (40 CFR 61 Subpart FF) for waste streams that are subject to both the control requirements of 40 CFR 63.1103(e)(3) for ethylene production sources and the control requirements of 40 CFR 61 Subpart FF. (40 CFR 63.1100(g)(6)(ii))
LAC 33:III.15			DOES NOT APPLY. This combustion source emits < 5 tpy SO <sub>2</sub> . (LAC 33:III.1502.A.3)
EQT29	Diesel Firewater Pump	40 CFR 60 Subpart III	DOES NOT APPLY - This subpart applies to owners/operators of stationary internal combustion engines that are ordered after July 11, 2005 and is modified, reconstructed, or built after April 1, 2006. The engine was built prior to 2006 and, therefore, this rule is not applicable. (40 CFR 60.4200)
		40 CFR 63 Subpart ZZZZ	DOES NOT APPLY. Regulation applies to Major Source of HAPs but this specific stationary RICE unit is an existing stationary compression ignition RICE; per 40 CFR 63.6590(b)(3) unit does not have to meet the requirements of this regulation or 40 CFR 63 Subpart A. No initial notification is required.
LAC 33:III.15			DOES NOT APPLY. This combustion source emits < 5 tpy SO <sub>2</sub> . (LAC 33:III.1502.A.3)
LAC 33:III.51			EXEMPT: Emissions from combustion sources burning Group 1 virgin fossil fuels are currently exempt from the requirements of Chapter 51 per LAC 33:III.5105(B)(3)(a)

# LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

## Ethylene Manufacturing Complex (Petro I/Petro II).

Agency Interest No.: 6164  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

EQT30, EQT35 Flare	EXEMPT. The flare is used as a control device to achieve compliance with an emission limitation or standard. However, the sources routed to the flare are exempt from CAM requirements because they are subject to an emissions limitation or standard, specifically 40 CFR 61 Subpart FF and 40 CFR 63 Subpart YY, which was proposed after November 15, 1990. (40 CFR 64)
LAC 33:III.15	DOES NOT APPLY. This combustion source emits < 5 tpy SO <sub>2</sub> . (LAC 33:III.1502.A.3)
40 CFR 60 Subpart Kb	DOES NOT APPLY. Tank capacity is >20,000 gallons and <40,000 gallons and its partial pressure of VOCs is <2.18 psia. (40 CFR 60.110b(c))
EQT32,EQT33 Frac Tanks	After the compliance date specified in 40 CFR 63.1102, compliance with 40 CFR 63.1103(e) shall constitute compliance with the Benzene Waste Operations NESHAP (40 CFR 61 Subpart FF) for waste streams that are subject to both the control requirements of 40 CFR 63.1103(e)(3) for ethylene production sources and the control requirements of 40 CFR 61 Subpart FF. (40 CFR 63.1100(g)(6)(ii))
LAC 33:III.21	DOES NOT APPLY. The vapor pressure of the liquid at storage conditions is <1.5 psia
LAC 33:III.21	EXEMPT. Any component of a wastewater storage, handling, transfer, or treatment facility that is subject to the wastewater provisions of HON, or 40 CFR 61 Subpart FF (BWON), or 40 CFR 60 Subpart YYY (SOCMIWW) is exempt from the provisions of this regulation. (LAC 33:III.21:53.G.6)
EQT34 Petro I Analyzers	DOES NOT APPLY. Gas streams exiting process analyzers are specifically excluded from the definition of "process vent" and are also not included under the definition of "equipment" with relation to equipment leak detection

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**  
 Agency Interest No.: 6164  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

EQT34 Petro I Analyzers	LAC 33:III.21	DOES NOT APPLY. Fugitive emissions are specifically excluded from the definition of "waste gas stream"
EQT43, EQT44 Boilers	40 CFR 63 Subpart DDDDD	DOES NOT APPLY. 40 CFR 63 Subpart DDDDD was vacated by the D.C. Circuit Court in 2007. Under the provisions of this vacated rule, this source was considered an existing large gaseous liquid fuel unit and was only subject to the initial notification requirements.
	LAC 33:III.51	EXEMPT: Emissions from combustion sources burning Group 1 virgin fossil fuels are currently exempt from the requirements of Chapter 51 per LAC 33:III.5105(B)(3)(a)
EQT101, EQT104 Demethanizer Tower Vent	LAC 33:III.21	EXEMPT. This source is subject to LAC 33:III.2147 as well as 40 CFR 60 Subpart NNN. Per LAC 33:III.2147, this state rule does not apply to any reactor process or distillation operation that is subject to NSPS subpart NNN.
	LAC 33:III.21	DOES NOT APPLY. Waste gas streams that are required by another federal or state regulation to implement controls that reduce VOCs to a more stringent standard are not subject to this standard.
EQT102 Oily Sludge Processing System		After the compliance date specified in 40 CFR 63.1102, compliance with 40 CFR 63.1103(e) shall constitute compliance with the Benzene Waste Operations NESHAP (40 CFR 61 Subpart FF) for waste streams that are subject to both the control requirements of 40 CFR 63.1103(e)(3) for ethylene production sources and the control requirements of 40 CFR 61 Subpart FF. (40 CFR 63.1100(g)(6)(ii))
EQT88, EQT89 Oil/Water Separator	40 CFR 60 Subpart Kb	DOES NOT APPLY. Tank capacity is <19,813 gallons. (40 CFR 60.110(b))

## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Ethylene Manufacturing Complex (Petro I/Petro II)**

**Agency Interest No.: 6164**  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

<b>EQT88, EQT89 Oil/Water Separator</b>	<p>After the compliance date specified in 40 CFR 63.1102, compliance with 40 CFR 63.1103(e) shall constitute compliance with the Benzene Waste Operations NESHAP (40 CFR 61 Subpart FF) for waste streams that are subject to both the control requirements of 40 CFR 63.1103(e)(3) for ethylene production sources and the control requirements of 40 CFR 61 Subpart FF. (40 CFR 63.1100(g)(6)(ii))</p>
<b>EQT90, EQT66 Spent Caustic Tank</b>	<p>EXEMPT. Any component of a wastewater storage, handling, transfer, or treatment facility that is subject to the wastewater provisions of HON, or 40 CFR 61 Subpart FF (BWON), or 40 CFR 60 Subpart YYY (SOCMIWW) is exempt from the provisions of this regulation. (LAC 33:III.21)</p>
<b>40 CFR 61 Subpart FF</b>	<p>After the compliance date specified in 40 CFR 63.1102, compliance with 40 CFR 63.1103(e) shall constitute compliance with the Benzene Waste Operations NESHAP (40 CFR 61 Subpart FF) for waste streams that are subject to both the control requirements of 40 CFR 63.1103(e)(3) for ethylene production sources and the control requirements of 40 CFR 61 Subpart FF. (40 CFR 63.1100(g)(6)(ii))</p>
<b>LAC 33:III.21</b>	<p>EXEMPT. Any component of a wastewater storage, handling, transfer, or treatment facility that is subject to the wastewater provisions of HON, or 40 CFR 61 Subpart FF (BWON), or 40 CFR 60 Subpart YYY (SOCMIWW) is exempt from the provisions of this regulation. (LAC 33:III.2153.G.6)</p>
<b>EQT91 Wastewater Equalization Tank</b>	<p>After the compliance date specified in 40 CFR 63.1102, compliance with 40 CFR 63.1103(e) shall constitute compliance with the Benzene Waste Operations NESHAP (40 CFR 61 Subpart FF) for waste streams that are subject to both the control requirements of 40 CFR 63.1103(e)(3) for ethylene production sources and the control requirements of 40 CFR 61 Subpart FF. (40 CFR 63.1100(g)(6)(ii))</p>

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**  
 Agency Interest No.: 6164  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

EQT91 Wastewater Equalization Tank	LAC 33:III.21	EXEMPT. Any component of a wastewater storage, handling, transfer, or treatment facility that is subject to the wastewater provisions of HON, or 40 CFR 61 Subpart FF (BWON), or 40 CFR 60 Subpart YYY (SOCMWW) is exempt from the provisions of this regulation. (LAC 33:III.2153.G.6)
EQT92 IGF Effluent Tank	40 CFR 60 Subpart Kb	DOES NOT APPLY. Tank capacity is <19,813 gallons. (40 CFR 60.110(b))
		After the compliance date specified in 40 CFR 63.1102, compliance with 40 CFR 63.1103(e) shall constitute compliance with the Benzene Waste Operations NESHPAP (40 CFR 61 Subpart FF) for waste streams that are subject to both the control requirements of 40 CFR 63.1103(e)(3) for ethylene production sources and the control requirements of 40 CFR 61 Subpart FF. (40 CFR 63.1100(g)(6)(ii))
	40 CFR 61 Subpart FF	EXEMPT. Any component of a wastewater storage, handling, transfer, or treatment facility that is subject to the wastewater provisions of HON, or 40 CFR 61 Subpart FF (BWON), or 40 CFR 60 Subpart YYY (SOCMWW) is exempt from the provisions of this regulation. (LAC 33:III.2153.G.6)
EQT77 Process Equalization Tank	LAC 33:III.21	After the compliance date specified in 40 CFR 63.1102, compliance with 40 CFR 63.1103(e) shall constitute compliance with the Benzene Waste Operations NESHPAP (40 CFR 61 Subpart FF) for waste streams that are subject to both the control requirements of 40 CFR 63.1103(e)(3) for ethylene production sources and the control requirements of 40 CFR 61 Subpart FF. (40 CFR 63.1100(g)(6)(ii))
	40 CFR 61 Subpart FF	EXEMPT. Any component of a wastewater storage, handling, transfer, or treatment facility that is subject to the wastewater provisions of HON, or 40 CFR 61 Subpart FF (BWON), or 40 CFR 60 Subpart YYY (SOCMWW) is exempt from the provisions of this regulation. (LAC 33:III.2153.G.6)

## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Ethylene Manufacturing Complex (Petro I/Petro II)**

Agency Interest No.: 6164

**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

EOT77 Process Equalization Tank	LAC 33:III.21	DOES NOT APPLY. The vessel stores volatile organic compounds with a maximum true vapor pressure <1.5 psia. (LAC 33:III.2103.B)
EQT80 Oily Sludge Tank	40 CFR 61 Subpart FF	After the compliance date specified in 40 CFR 63.1102, compliance with 40 CFR 63.1103(e) shall constitute compliance with the Benzene Waste Operations NESHAP (40 CFR 61 Subpart FF) for waste streams that are subject to both the control requirements of 40 CFR 63.1103(e)(3) for ethylene production sources and the control requirements of 40 CFR 61 Subpart FF. (40 CFR 63.1100(g)(6)(ii))
EOT81 CPI 8702L A&B	LAC 33:III.21	EXEMPT. Any component of a wastewater storage, handling, transfer, or treatment facility that is subject to the wastewater provisions of HON, or 40 CFR 61 Subpart FF (BWON), or 40 CFR 60 Subpart YYY (SOCMIWW) is exempt from the provisions of this regulation. (LAC 33:III.2153.G.6)
EOT82 IGF 8718L	40 CFR 61 Subpart FF	DOES NOT APPLY. The vessel stores volatile organic compounds with a maximum true vapor pressure <1.5 psia. (LAC 33:III.2103.B)
	LAC 33:III.21	EXEMPT. Any component of a wastewater storage, handling, transfer, or treatment facility that is subject to the wastewater provisions of HON, or 40 CFR 61 Subpart FF (BWON), or 40 CFR 60 Subpart YYY (SOCMIWW) is exempt from the provisions of this regulation. (LAC 33:III.2153.G.6)
	40 CFR 60 Subpart Kb	DOES NOT APPLY. Tank capacity is <19,813 gallons. (40 CFR 60.110(b))

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Agency Interest No.: 6164**  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

EQT82 IGF 8718L	40 CFR 61 Subpart FF  LAC 33:III.21	After the compliance date specified in 40 CFR 63.1102, compliance with 40 CFR63.1103(e) shall constitute compliance with the Benzene Waste Operations NESHAP (40 CFR 61 Subpart FF) for waste streams that are subject to both the control requirements of 40 CFR 63.1103(e)(3) for ethylene production sources and the control requirements of 40 CFR 61 Subpart FF. (40 CFR 63.1100(g)(6)(ii))
EQT65 Caustic Scrubber	40 CFR 61 Subpart FF  LAC 33:III.21	EXEMPT. Any component of a wastewater storage, handling, transfer, or treatment facility that is subject to the wastewater provisions of HON, or 40 CFR 61 Subpart FF (BWON), or 40 CFR 60 Subpart YYY (SOCMIWW) is exempt from the provisions of this regulation. (LAC 33:III.2153.G.6)
EQT67 Pyrolysis Oil Storage Tank	LAC 33:III.21	DOES NOT APPLY. The vessel stores volatile organic compounds with a maximum true vapor pressure <1.5 psia. (LAC 33:III.2103.B)
EQT68, EQT69	40 CFR 60 Subpart Kb	After the compliance date specified in 40 CFR 63.1102, compliance with 40 CFR63.1103(e) shall constitute compliance with the Benzene Waste Operations NESHAP (40 CFR 61 Subpart FF) for waste streams that are subject to both the control requirements of 40 CFR 63.1103(e)(3) for ethylene production sources and the control requirements of 40 CFR 61 Subpart FF. (40 CFR 63.1100(g)(6)(ii))
		EXEMPT. Any component of a wastewater storage, handling, transfer, or treatment facility that is subject to the wastewater provisions of HON, or 40 CFR 61 Subpart FF (BWON), or 40 CFR 60 Subpart YYY (SOCMIWW) is exempt from the provisions of this regulation. (LAC 33:III.2153.G.6)
		DOES NOT APPLY. The vessel stores volatile organic compounds with a maximum true vapor pressure <1.5 psia. (LAC 33:III.2103.B)
		DOES NOT APPLY. Tank capacity is <19,813 gallons. (40 CFR 60.110(b))

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Agency Interest No.: 6164**

**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

EQT68, EQT69 Slop Oil Tanks	After the compliance date specified in 40 CFR 63.1102, compliance with 40 CFR 63.1103(e) shall constitute compliance with the Benzene Waste Operations NESHAAP (40 CFR 61 Subpart FF) for waste streams that are subject to both the control requirements of 40 CFR 63.1103(e)(3) for ethylene production sources and the control requirements of 40 CFR 61 Subpart FF. (40 CFR 63.1100(g)(6)(ii))
40 CFR 61 Subpart FF	EXEMPT. Any component of a wastewater storage, handling, transfer, or treatment facility that is subject to the wastewater provisions of HON, or 40 CFR 61 Subpart FF (BWON), or 40 CFR 60 Subpart YYY (SOCMIW) is exempt from the provisions of this regulation. (LAC 33:III.21)
LAC 33:III.21	DOES NOT APPLY. The vessel stores volatile organic compounds with a maximum true vapor pressure <1.5 psia. (LAC 33:III.2103.B)
LAC 33:III.21	DOES NOT APPLY. Tank capacity is <19,813 gallons. (40 CFR 60.110(b))
40 CFR 60 Subpart Kb	DOES NOT APPLY. The vessel stores volatile organic compounds with a maximum true vapor pressure <1.5 psia. (LAC 33:III.2103.B)
EQT72 Equalization Tank	DOES NOT APPLY. The vessel stores volatile organic compounds with a maximum true vapor pressure <1.5 psia. (LAC 33:III.2103.B)
EQT73 Retention Equalization Tank	EXEMPT. Any component of a wastewater storage, handling, transfer, or treatment facility that is subject to the wastewater provisions of HON, or 40 CFR 61 Subpart FF (BWON), or 40 CFR 60 Subpart YYY (SOCMIW) is exempt from the provisions of this regulation. (LAC 33:III.2153.G.6)
LAC 33:III.21	DOES NOT APPLY. The vessel stores volatile organic compounds with a maximum true vapor pressure <1.5 psia. (LAC 33:III.2103.B)
LAC 33:III.21	DOES NOT APPLY. Tank capacity is <19,813 gallons. (40 CFR 60.110(b))
EQT74 Tar Tank	DOES NOT APPLY. Tank capacity is <19,813 gallons. (40 CFR 60.110(b))

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Agency Interest No.: 6164**  
**Westlake Petrochemicals LLC**  
**Sulphur Calcasieu Parish, Louisiana**

**X1. Table 2. Explanation for Exemption Status or Non-Applicability of a Source**

<b>EQT74</b> Tar Tank	40 CFR 61 Subpart FF	After the compliance date specified in 40 CFR 63.1102, compliance with 40 CFR63.1103(e) shall constitute compliance with the Benzene Waste Operations NESHAP (40 CFR 61 Subpart FF) for waste streams that are subject to both the control requirements of 40 CFR 63.1103(e)(3) for ethylene production sources and the control requirements of 40 CFR 61 Subpart FF. (40 CFR 63.1100(g)(6)(ii))
LAC 33:III.21		EXEMPT. Any component of a wastewater storage, handling, transfer, or treatment facility that is subject to the wastewater provisions of HON, or 40 CFR 61 Subpart FF (BWON), or 40 CFR 60 Subpart YYY (SOCMIWW) is exempt from the provisions of this regulation. (LAC 33:III.21 53.G.6)
LAC 33:III.21		DOES NOT APPLY. The vessel stores volatile organic compounds with a maximum true vapor pressure <1.5 psia. (LAC 33:III.2103.B)
EQT75 Metering Skids	LAC 33:III.51	DOES NOT APPLY. This source does not emit any LTAPs. (LAC 33:III.5107 & 5109)
EQT76 Pyrolysis Oil Loading	LAC 33:III.21	DOES NOT APPLY. VOCs loaded have a TVP <1.5 psia. (LAC 33:III.2107)

The above table provides explanation for both the exemption status or non-applicability of a source cited by 1, 2 or 3 in the matrix presented in Section X (Table 1) of this permit.

**AI ID: 6164 Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro II/Petro III)**  
**Activity Number: PER20090006**  
**Permit Number: 0520-00145-V5**  
**Air - Title V Regular Permit Renewal**

**General Information**

Also Known As:	ID	Name	User Group	Start Date
	0520-00145	Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro II/Petro II) Federal Tax ID	CDS Number Federal Tax ID	05-27-1993 11-21-1999
	76-0248457	Westlake Petrochemicals LLC	Hazardous Waste Notification	09-17-1990
LAD985184761	LA0082511	LPDES #	LPDES Permit #	06-25-2003
WP2607		LWDPS #	LWDPS Permit #	06-25-2003
		Westlake Petrochemicals LLC	Multimedia	12-31-2007
		Priority 1 Emergency Site	Priority 1 Emergency Site	07-18-2006
		Radioactive Material License	Radiation License Number	12-23-2003
LA-10300-L01A	G-019-2929	Site ID #	Solid Waste Facility No.	11-21-1999
12409		Westlake Petrochemicals Corp	TEMPO Merge	01-04-2001
			Main FAX:	3375834767
			Main Phone:	3375832200
Physical Location:	900 Hwy 108 (portion of) Sulphur, LA 70665			
Mailing Address:	PO Box 2449 Sulphur, LA 706642449			
Location of Front Gate:	30.183056 latitude, -93.2098333 longitude	Coordinate Method: Lat\Long - DMS	Coordinate Datum: NAD83	
Related People:	Name	Mailing Address	Phone (Type)	Relationship
	James Adams	PO Box 2449 Sulphur, LA 706642449	3372630439 (CP)	Radiation Safety Officer for
	James Adams	PO Box 2449 Sulphur, LA 706642449	jadams@westlaketech	Radiation Safety Officer for
	James Adams	PO Box 2449 Sulphur, LA 706642449	3375833391B (WF)	Radiation Safety Officer for
	James Adams	PO Box 2449 Sulphur, LA 706642449	33758333191 (WP)	Radiation Safety Officer for
	Michele Gill	PO Box 2449 Sulphur, LA 706642449	33758333159 (WP)	Water Permit Contact For
	Michele Gill	PO Box 2449 Sulphur, LA 706642449	33758336982 (WF)	Water Permit Contact For
	Michele Gill	PO Box 2449 Sulphur, LA 706642449	mgill@westlake.com	Water Permit Contact For
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	3375836982 (WF)	Air Permit Contact For
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	wpsmith@westlake.c	Air Permit Contact For
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	3375836927 (WP)	Hazardous Waste Permit Contact For
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	3375836982 (WF)	Hazardous Waste Permit Contact For
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	wpsmith@westlake.c	Hazardous Waste Permit Contact For
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	3375836927 (WP)	Haz. Waste Billing Party for
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	3375836982 (WF)	Haz. Waste Billing Party for
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	wpsmith@westlake.c	Haz. Waste Billing Party for
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	3375836927 (WP)	Accident Prevention Billing Party for

**General Information**

**AID: 6164 Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Activity Number: PER20090006**  
**Permit Number: 0520-00145-V5**  
**Air - Title V Regular Permit Renewal**

Related People:	Name	Mailing Address	Phone (Type)	Relationship
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	3375836982 (WF)	Accident Prevention Billing Party for
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	3375836927 (WP)	Air Permit Contact For
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	wpsmith@westlake.cc	Accident Prevention Billing Party for
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	3375836982 (WF)	Water Permit Contact For
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	3375836927 (WP)	Water Permit Contact For
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	wpsmith@westlake.cc	Responsible Official for
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	3375836982 (WF)	Responsible Official for
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	3375836927 (WP)	Responsible Official for
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	wpsmith@westlake.cc	Water Permit Contact For
	Wayne Smith II	PO Box 2449 Sulphur, LA 706642449	jwalker@westlake.cc	Emission Inventory Contact for
	Jeff Walker	PO Box 2449 Sulphur, LA 706642449	3375836982 (WF)	Emission Inventory Contact for
	Jeff Walker	PO Box 2449 Sulphur, LA 706642449	3375833189 (WP)	Emission Inventory Contact for
	Jeff Walker	PO Box 2449 Sulphur, LA 706642449	3375833189 (WP)	Water Permit Contact For
	Jeff Walker	PO Box 2449 Sulphur, LA 706642449	jwalker@westlake.cc	Water Permit Contact For
	Jeff Walker	PO Box 2449 Sulphur, LA 706642449	3375836982 (WF)	Water Permit Contact For
	Jeff Walker	PO Box 2449 Sulphur, LA 706642449	3375833189 (WP)	Water Permit Contact For
	Jeff Walker	PO Box 2449 Sulphur, LA 706642449	jwalker@westlake.cc	Water Permit Contact For
	Jeff Walker	PO Box 2449 Sulphur, LA 706642449	3375836982 (WF)	Water Permit Contact For
	Howard Wasserman	PO Box 2449 Sulphur, LA 706642449	3375836428 (WP)	Accident Prevention Contact for
	Howard Wasserman	PO Box 2449 Sulphur, LA 706642449	3375836982 (WF)	Accident Prevention Contact for
	Howard Wasserman	PO Box 2449 Sulphur, LA 706642449	hwasserman@west	Accident Prevention Contact for
Related Organizations:	Name	Address	Phone (Type)	Relationship
	Westlake Petrochemicals LLC	PO Box 2449 Sulphur, LA 706642449	3375832200 (WP)	Owns
	Westlake Petrochemicals LLC	PO Box 2449 Sulphur, LA 706642449	3375832200 (WP)	Emission Inventory Billing Party
	Westlake Petrochemicals LLC	PO Box 2449 Sulphur, LA 706642449	3375832200 (WP)	Operates
	Westlake Petrochemicals LLC	c/o CT Corporation System Baton Rouge, LA 70808	3375832200 (WP)	Agent of Service for
	Westlake Petrochemicals LLC	PO Box 2449 Sulphur, LA 706642449	3375832200 (WP)	Water Billing Party for
	Westlake Petrochemicals LLC	PO Box 2449 Sulphur, LA 706642449	3375832200 (WP)	Air Billing Party for
	Westlake Petrochemicals LP	PO Box 2449 Sulphur, LA 706642449	3375832200 (WP)	Emission Inventory Billing Party
	Westlake Petrochemicals LP	PO Box 2449 Sulphur, LA 706642449	3375832200 (WP)	Radiation License Billing Party for

325110. Petrochemical Manufacturing

NAIC Codes:

**General Information**

AI ID: 6164 Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)  
Activity Number: PER20090006  
Permit Number: 0520-00145-V5  
Air - Title V Regular Permit Renewal

Note: This report entitled "General Information" contains a summary of facility-level information contained in LDEQ's TEMPO database for this facility and is not considered a part of the permit. Please review the information contained in this document for accuracy and completeness. If any changes are required or if you have questions regarding this document, you may contact Ms. Tommie Milam, Permit Support Services Division, at (225) 219-3259 or email your changes to facupdate@la.gov.

INVENTORIES

**AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Activity Number: PER20090006**  
**Permit Number: 0520-00145-V6**  
**Air - Title V Regular Permit Renewal**

## Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
<b>Petro I and II Units</b>						
EQT 0017	31-85 - Zum Steam Boiler No. 2	211 MM BTU/hr				8760 hr/yr
EQT 0018	1-89A - Millisecond Furnace (1001B)	266 MM BTU/hr				8760 hr/yr
EQT 0019	1-89B - Millisecond Furnace (1002B)	266 MM BTU/hr				8760 hr/yr
EQT 0020	1-89C - Millisecond Furnace (1003B)	266 MM BTU/hr				8760 hr/yr
EQT 0021	1-89D - Millisecond Furnace (1004B)	266 MM BTU/hr				8760 hr/yr
EQT 0022	1-89E - Millisecond Furnace (1005B)	266 MM BTU/hr				8760 hr/yr
EQT 0023	1-89F - Millisecond Furnace (1006B)	266 MM BTU/hr				8760 hr/yr
EQT 0024	2-89 - Zum Steam Boiler No. 1	148 MM BTU/hr				8760 hr/yr
EQT 0025	4-89 - Decoking Drum					8760 hr/yr
EQT 0026	6-89 Cooling Tower					8760 hr/yr
EQT 0027	7-89 - Oil/Water Separator					8760 hr/yr
EQT 0028	8-89 - Emergency Generator	2.63 MM BTU/hr				52 hr/yr
EQT 0029	9-89 - Diesel Firewater Pump	5.64 MM BTU/hr				52 hr/yr
EQT 0030	10-89 - Flare	329 MM BTU/hr				8760 hr/yr
EQT 0031	29-89 - Propanol Storage Tank	6000 gallons			Propanol	8760 hr/yr
EQT 0032	42-89 - Temporary Oily Sludge Storage Vessels (Frac Tanks)	20000 gallons			Oily Sludge	8760 hr/yr
EQT 0033	43-89 - Temporary Wastewater Storage Vessels (Frac Tanks)	20000 gallons			Wastewater	8760 hr/yr
EQT 0034	44-89 - Petro I Analyzers					8760 hr/yr
EQT 0035	30-94 - Co-Products Flare	51.6 MM BTU/hr				8760 hr/yr
EQT 0036	1-95 - Pyrolysis Furnace (ABB Lummus)	245 MM BTU/hr				8760 hr/yr
EQT 0037	9-01 - Thermal Oxidizer	30 MM BTU/hr	3.15 MM BTU/hr			8760 hr/yr
EQT 0038	WPT1-96 - ABB Lummus Furnace (BA-101)	245 MM BTU/hr				8760 hr/yr
EQT 0039	WPT2-96 - ABB Lummus Furnace (BA-102)	245 MM BTU/hr				8760 hr/yr
EQT 0040	WPT3-96 - ABB Lummus Furnace (BA-103)	245 MM BTU/hr				8760 hr/yr
EQT 0041	WPT4-96 - ABB Lummus Furnace (BA-104)	245 MM BTU/hr				8760 hr/yr
EQT 0042	WPT5-96 - ABB Lummus Furnace (BA-105)	245 MM BTU/hr				8760 hr/yr
EQT 0043	WPT6-96 - Boiler (A)	165 MM BTU/hr				8760 hr/yr
EQT 0044	WPT7-96 - Boiler (B)	165 MM BTU/hr				8760 hr/yr
EQT 0045	WPT8-96 - Cooling Tower (PA-1501)					8760 hr/yr
EQT 0047	WPT10-96 - Diesel Firewater Pumps (PA-1602)		6.5 MM BTU/hr			52 hr/yr
EQT 0048	WPT11-96 - Flare (PA-2201)	863 MM BTU/hr	55.35 MM BTU/hr			8760 hr/yr
EQT 0049	WPT15-96 - Propanol Storage Tank (FA-2101)	5235 gallons			Propanol	8760 hr/yr
EQT 0050	WPT24-96 - Stormwater Holding Tank (FB1807)	700000 gallons			Stormwater	8760 hr/yr
EQT 0051	WPT34-96 - Py-Gas Storage Tank (TK-103)	916000 gallons	5140 gallons/hr		Py-Gas	8760 hr/yr
EQT 0052	WPT36-96 - Cracking Tar Drum	55 gallons				8760 hr/yr
EQT 0053	WPT35-98 - Ground Flare		14.5 MM BTU/hr			168 hr/yr
EQT 0054	WPT38-96 - Converter Regenerator Vent					8760 hr/yr
EQT 0055	12-89 - Compressor Wash Oil Tank	14396 gallons			Wash Oil	8760 hr/yr

**INVENTORIES**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro II/Petro II)  
 Activity Number: PER20090006  
 Permit Number: 0520-00145-V6  
 Air - Title V Regular Permit Renewal

**Subject Item Inventory:**

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
<b>Petro I and II Units</b>						
EOT 0056	"30-89 - 93% Sulfuric Acid Storage Tank	7615 gallons		2.61 gallons/hr	Sulfuric Acid	8760 hr/yr
EOT 0057	WPT20-96 - Sulfuric Acid Storage Day Tank					8760 hr/yr
EOT 0058	WPT26-96 - WW Acid Day Tank					8760 hr/yr
EOT 0059	WPT28-96 - 93% Acid Storage Tank	13637 gallons				8760 hr/yr
EOT 0060	1-04 - Sulfuric Acid Day Tank	450 gallons				8760 hr/yr
EOT 0062	WPT3-04 - Pyrolysis Gasoline Storage Tank	1.26 million gallons				8760 hr/yr
EOT 0063	WPT4-04 - PFO Storage Tank	183000 gallons			PFO	8760 hr/yr
EOT 0064	WPT2-04 - PFO Loading Activities			1000 gallons/hr		8760 hr/yr
EOT 0065	11-89 - Caustic Scrubber (Zimpro Vent)					8760 hr/yr
EOT 0066	13-89 - Spent Caustic Tank 8401F	58000 gallons			Spent Caustic	8760 hr/yr
EOT 0067	15-89 - Pyrolysis Oil Storage Tank 8405F	165000 gallons			Pyrolysis Oil	8760 hr/yr
EOT 0068	16-89 - Slap Oil Tank 8401F1	7000 gallons			Slap Oil	8760 hr/yr
EOT 0069	17-89 - Slap Oil Tank 8401F2	7000 gallons			Slap Oil	8760 hr/yr
EOT 0070	18-89 - CPI Sludge Tank 8404F1	5000 gallons			CPI Sludge	8760 hr/yr
EOT 0071	19-89 - CPI Sludge Tank 8404F2	5000 gallons			CPI Sludge	8760 hr/yr
EOT 0072	35-89 - SW Equalization Tank 8402F	337500 gallons				8760 hr/yr
EOT 0073	36-89 - Retention Equalization Tank 8460F	1.13 million gallons				8760 hr/yr
EOT 0074	37-89 - Tar Tank 6411F	750 gallons				8760 hr/yr
EOT 0075	39-89 - Metering Skids					8760 hr/yr
EOT 0076	41-89 - PY Oil Loading					8760 hr/yr
EOT 0077	1-01 - Process Equalization Tank 8465F	375800 gallons				8760 hr/yr
EOT 0078	4-01 - Oily Sludge Tank 8404F3	5700 gallons			Sludge	8760 hr/yr
EOT 0079	5-01 - Oily Sludge Tank 8404F4	5700 gallons			Sludge	8760 hr/yr
EOT 0080	6-01 - Oily Sludge Tank 8480	211400 gallons			Sludge	8760 hr/yr
EOT 0081	7-01 - CPI 8702L-A and B	5587 gallons			Wastewater	8760 hr/yr
EOT 0082	8-01 - IGF 8718L	5300 gallons			Wastewater	8760 hr/yr
EOT 0085	BZSTPR - Benzene Stripper					8760 hr/yr
EOT 0086	FB-1801 - Quench Area Drain Tank FB-1801	1270 gallons				8760 hr/yr
EOT 0087	FB-1802 - Caustic Area Drain Tank FB-1802	1270 gallons				8760 hr/yr
EOT 0088	WPT13-96 - CPI Oil/Water Separator	200 gallons				8760 hr/yr
EOT 0089	WPT14-96 - CPI Oil/Water Separator	200 gallons				8760 hr/yr
EOT 0090	WPT21-96 - Spent Caustic Tank FB-1702	600000 gallons			Spent Caustic	8760 hr/yr
EOT 0091	WPT22-96 - Wastewater Equalization Tank FB-1803	350000 gallons			Wastewater	8760 hr/yr
EOT 0092	WPT23-96 - IGF Effluent Tank FB-1806	7700 gallons			Wastewater	8760 hr/yr
EOT 0093	WPT31-96 - Pyrolysis Gasoline Storage Tank FB2103	211000 gallons			Pyrolysis Gasoline	8760 hr/yr
EOT 0095	PYGL - PY Gas Loading					8760 hr/yr
EOT 0096	BDL - Butadiene Loading					8760 hr/yr

**INVENTORIES**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro II/Petro II)  
 Activity Number: PER20090006  
 Permit Number: 0520-00145-V6  
 Air - Title V Regular Permit Renewal

**Subject Item Inventory:**

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
<b>Petro I and II Units</b>						
EQT 0097	ZUP2 - Petro II Zimpro Unit					8760 hr/yr
EQT 0098	WPT1-08 - GAS-TK	10000 gallons		40000 gallons/yr		8760 hr/yr
EQT 0101	CNTLVENT 3301E - Demethanizer Tower Vent					8760 hr/yr
EQT 0102	CNTLVENT OPS - Oily Sludge Processing System					8760 hr/yr
EQT 0103	CNTLVENT Propylene Ldg - Propylene Railcar Loading					1000 hr/yr
EQT 0104	CNTLVENT DA-301 - Demethanizer Tower Vent					8760 hr/yr
EQT 0105	WPT1-10 - Ethylene Furnace 6		245 MM BTU/hr	230 MM BTU/hr		8760 hr/yr
FUG 0003	5-89 - Fugitives - Petro I Equipment Leaks					8760 hr/yr
FUG 0004	WPT12-96 - Fugitives - Petro II Equipment Leaks					8760 hr/yr

**Stack Information:**

ID	Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (°F)
<b>Petro I and II Units</b>							
EQT 0017	31-85 - Zum Steam Boiler No. 2	60	59832	4.6		100	400
EQT 0018	1-89A - Millisecond Furnace (1001B)	48	56549	5		143	240
EQT 0019	1-89B - Millisecond Furnace (1002B)	48	56549	5		143	240
EQT 0020	1-89C - Millisecond Furnace (1003B)	48	56549	5		143	240
EQT 0021	1-89D - Millisecond Furnace (1004B)	48	56549	5		143	240
EQT 0022	1-89E - Millisecond Furnace (1005B)	48	56549	5		143	240
EQT 0023	1-89F - Millisecond Furnace (1006B)	48	56549	5		143	240
EQT 0024	2-89 - Zum Steam Boiler No. 1	60	59798	4.6		100	400
EQT 0025	4-89 - Decoking Drum	75	31809	3		50	750
EQT 0026	6-89 - Cooling Tower	24.9		32		58	105
EQT 0027	7-89 - Oil/Water Sparator			.5		8	70
EQT 0028	8-89 - Emergency Generator	3	17	.33		15	900
EQT 0029	9-89 - Diesel Firewater Pump	10	50	.33		15	900
EQT 0030	10-89 - Flare	1	424	3		199	125
EQT 0031	29-89 - Propanol Storage Tank			.17		13	
EQT 0033	43-89 - Temporary Wastewater Storage Vessels (Frac Tanks)	.03		.33		8	70
EQT 0034	44-89 - Petro I Analyzers	.3		.05		12	100
EQT 0035	30-94 - Co-Products Flare			2.6		30	300
EQT 0036	1-95 - Pyrolysis Furnace (ABB Lummus)	37	84500	7		142	395
EQT 0037	9-01 - Thermal Oxidizer	2	360384	8		45	1214

**INVENTORIES**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)  
 Activity Number: PER20090006  
 Permit Number: 0520-00145-V6  
 Air - Title V Regular Permit Renewal

**Stack Information:**

ID	Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (°F)
<b>Petro I and II Units</b>							
EQT 0038	WPT1-96 - ABB Lummus Furnace (BA-101)	37	84500	7		142	395
EQT 0039	WPT2-96 - ABB Lummus Furnace (BA-102)	37	84500	7		142	395
EQT 0040	WPT3-96 - ABB Lummus Furnace (BA-103)	37	84500	7		142	395
EQT 0041	WPT4-96 - ABB Lummus Furnace (BA-104)	37	84500	7		142	395
EQT 0042	WPT5-96 - ABB Lummus Furnace (BA-105)	37	84500	7		142	395
EQT 0043	WPT6-96 - Boiler (A)	65.2	65000	4.6		100	-335
EQT 0044	WPT7-96 - Boiler (B)	65.2	65000	4.6		100	-335
EQT 0045	WPT8-96 - Cooling Tower (PA-1501)	24.9		32		58	105
EQT 0047	WPT10-96 Diesel Firewater Pumps (PA-1602)	1	50	.33		15	900
EQT 0048	WPT11-96 Flare (PA-2201)	1	424	.35		300	1800
EQT 0049	WPT15-96 - Propanol Storage Tank (FA-2101)			.17		12	75
EQT 0050	WPT24-96 - Stormwater Holding Tank (FB1807)			.83		12	100
EQT 0051	WPT34-96 Py-Gas Storage Tank (TK-103)	1		.33		4	
EQT 0053	WPT35-98 Ground Flare	1	1178	5		25	-125
EQT 0054	WPT38-96 - Converter Regenerator Vent		1			20	-140
EQT 0055	12.89 - Compressor Wash Oil Tank			.17		14.5	75
EQT 0056	30.89 - 93% Sulfuric Acid Storage Tank			.42			
EQT 0062	WPT3-04 - Pyrolysis Gasoline Storage Tank	.3		.33		8	70
EQT 0063	WPT4-04 - PFO Storage Tank	.3		.33		12	70
EQT 0064	WPT2-04 - PFO Loading Activities	.3		.33		8	70
EQT 0068	WPT1-08 - GAS-TK					9	
EQT 0105	WPT1-10 - Ethylene Furnace 6	37	84500	7		142	395

**Relationships:**

ID	Description	Relationship	ID	Description
EQT 0065	11-89 - Caustic Scrubber (Zimpro Vent)	Controlled by	EQT 0037	9-01 - Thermal Oxidizer
EQT 0066	13-89 - Spent Caustic Tank 5407F	Controlled by	EQT 0037	9-01 - Thermal Oxidizer
EOT 0067	15-89 - Pyrolysis Oil Storage Tank 8405F	Controlled by	EQT 0037	9-01 - Thermal Oxidizer
EOT 0068	16-89 - Slag Oil Tank 8401F1	Controlled by	EQT 0037	9-01 - Thermal Oxidizer
EOT 0069	17-89 - Slag Oil Tank 8401F2	Controlled by	EQT 0037	9-01 - Thermal Oxidizer
EOT 0070	18-89 - CPI Sludge Tank 8404F1	Controlled by	EQT 0037	9-01 - Thermal Oxidizer
EOT 0071	19-89 - CPI Sludge Tank 8404F2	Controlled by	EQT 0037	9-01 - Thermal Oxidizer
EOT 0072	35-89 - SW Equalization Tank 8402F	Controlled by	EQT 0037	9-01 - Thermal Oxidizer

**INVENTORIES**

**AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Activity Number: PER20090006**  
**Permit Number: 0520-00145-V6**  
**Air - Title V Regular Permit Renewal**

**Relationships:**

ID	Description	Relationship	ID	Description
EQT 0073	36-89 - Retention Equalization Tank 8460F	Controlled by	EQT 0037	9-01 - Thermal Oxidizer
EQT 0074	37-89 - Tar Tank 6411F	Controlled by	EQT 0037	9-01 - Thermal Oxidizer
EQT 0075	39-89 - Metering Skids	Controlled by , 30-94 Co-Products Flare	EQT 0035	30-94 - Co-Products Flare
EQT 0076	41-89 - PY Oil Loading	Controlled by	EQT 0030	10-89 - Flare
EQT 0077	1-01 - Process Equalization Tank 8465F	Controlled by	EQT 0037	9-01 - Thermal Oxidizer
EQT 0078	4-01 - Oily Sludge Tank 8404F3	Controlled by	EQT 0037	9-01 - Thermal Oxidizer
EQT 0079	5-01 - Oily Sludge Tank 8404F4	Controlled by	EQT 0037	9-01 - Thermal Oxidizer
EQT 0080	6-01 - Oily Sludge Tank 8480	Controlled by	EQT 0037	9-01 - Thermal Oxidizer
EQT 0081	7-01 - CPI 8702L-A and B	Controlled by	EQT 0037	9-01 - Thermal Oxidizer
EQT 0082	8-01 - IGF 8718L	Controlled by	EQT 0037	9-01 - Thermal Oxidizer
EQT 0085	BZSTPR - Benzene Stripper	Controlled by	EQT 0037	9-01 - Thermal Oxidizer
EQT 0086	FB-1801 - Quench Area Drain Tank FB-1801	Controlled by	EQT 0048	WPT11-96 - Flare (PA-2201)
EQT 0087	FB-1802 - Caustic Area Drain Tank FB-1802	Controlled by	EQT 0048	WPT11-96 - Flare (PA-2201)
EQT 0088	WPT13-96 - CPI Oil/Water Separator	Controlled by	EQT 0053	WPT35-98 - Ground Flare
EQT 0089	WPT14-96 - CPI Oil/Water Separator	Controlled by	EQT 0053	WPT35-98 - Ground Flare
EQT 0090	WPT21-96 - Spent Caustic Tank FB-1702	Controlled by	EQT 0053	WPT35-98 - Ground Flare
EQT 0091	WPT22-96 - Wastewater Equalization Tank FB-1803	Controlled by	EQT 0053	WPT35-98 - Ground Flare
EQT 0092	WPT23-96 - IGF Effluent Tank FB-1806	Controlled by	EQT 0053	WPT35-98 - Ground Flare
EQT 0093	WPT31-96 - Pyrolysis Gasoline Storage Tank FB2103	Controlled by	EQT 0053	WPT35-98 - Ground Flare
EQT 0095	PYGL - PY Gas Loading	Controlled by	EQT 0035	30-94 - Co-Products Flare
EQT 0096	BDL - Butadiene Loading	Controlled by	EQT 0035	30-94 - Co-Products Flare
EQT 0097	ZUP2 - Petro II Zimpro Unit	Controlled by	EQT 0043	WPT6-96 - Boiler (A)
EQT 0097	ZUP2 - Petro II Zimpro Unit	Controlled by	EQT 0044	WPT7-96 - Boiler (B)

**Subject Item Groups:**

ID	Group Type	Group Description
CRG 0001	Common Requirements Group	Petro I Furnaces - Petro I Furnaces
CRG 0003	Common Requirements Group	Petro 2 Furnaces - Petro 2 Furnaces
CRG 0005	Common Requirements Group	Wastewater Treatment - Wastewater Treatment Components - Petro 1
CRG 0006	Common Requirements Group	Wastewater Treatment - Wastewater Treatment Units - Petro 2
GRP 0004	Equipment Group	BOILERS - Boilers Cap
GRP 0005	Equipment Group	FURNACES - NOx Cap
UNF 0001	Unit or Facility Wide	Facility - Petro and II Units

**Group Membership:**

**INVENTORIES**

**AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Activity Number: PER20090006**  
**Permit Number: 0520-00145-V6**  
**Air - Title V Regular Permit Renewal**

Group Membership:		Description	Member of Groups
ID			
EQT 0018	1-89A - Millisecond Furnace (1001B)		CRG000000000001, GRP000000000005
EQT 0019	1-89B - Millisecond Furnace (1002B)		CRG000000000001, GRP000000000005
EQT 0020	1-89C - Millisecond Furnace (1003B)		CRG000000000001, GRF000000000005
EQT 0021	1-89D - Millisecond Furnace (1004B)		CRG000000000001, GRF000000000005
EQT 0022	1-89E - Millisecond Furnace (1005B)		CRG000000000001, GRF000000000005
EQT 0023	1-89F - Millisecond Furnace (1006B)		CRG000000000001, GRP000000000005
EQT 0038	WPT1-96 - ABB Lummus Furnace (BA-101)		CRG000000000003
EQT 0039	WPT2-96 - ABB Lummus Furnace (BA-102)		CRG000000000003
EQT 0040	WPT3-96 - ABB Lummus Furnace (BA-103)		CRG000000000003
EQT 0041	WPT4-96 - ABB Lummus Furnace (BA-104)		CRG000000000003
EQT 0042	WPT5-96 - ABB Lummus Furnace (BA-105)		CRG000000000003
EQT 0043	WPT6-96 - Boiler (A)		GRP000000000004
EQT 0044	WPT7-96 - Boiler (B)		GRP000000000004
EQT 0068	16-89 - Stop Oil Tank 8401F1		CRG000000000005
EQT 0069	17-89 - Stop Oil Tank 8401F2		CRG000000000005
EQT 0070	18-89 - CPI Sludge Tank 8404F1		CRG000000000005
EQT 0071	19-89 - CPI Sludge Tank 8404F2		CRG000000000005
EQT 0077	1-01 - Process Equalization Tank 8465F		CRG000000000005
EQT 0078	4-01 - Oily Sludge Tank 8404F3		CRG000000000005
EQT 0079	5-01 - Oily Sludge Tank 8404F4		CRG000000000005
EQT 0080	6-01 - Oily Sludge Tank 8480		CRG000000000005
EQT 0081	7-01 - CPI 8702L-A and B		CRG000000000005
EQT 0082	8-01 - GF 8718L		CRG000000000005
EQT 0088	WPT13-96 - CPI Oil/Water Separator		CRG000000000006
EQT 0089	WPT14-96 - CPI Oil/Water Separator		CRG000000000006
EQT 0090	WPT21-96 - Spent Caustic Tank FB-1702		CRG000000000006
EQT 0091	WPT22-96 - Wastewater Equalization Tank FB-1803		CRG000000000006

**NOTE: The UNF group relationship is not printed in this table. Every subject item is a member of the UNF group**

Annual Maintenance Fee:	Air Contaminant Source	Multiplier	Units Of Measure
Fee Number	Fee Number		
0635	0635 Olefins and Aromatics N.E.C. (Rated Capacity)	1	MM lbs/yr
SIC Codes:	UNF 001		

2869 Industrial organic chemicals, nec

**EMISSION RATES FOR CRITERIA POLLUTANTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)  
 Activity Number: PER20090006  
 Permit Number: 0520-00145-V6  
 Air - Title V Regular Permit Renewal

Subject Item	CO			NOx			PM10			SO2			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year												
<b>Petro I and II Units</b>															
EQT 0017 31-85	10.50	15.80	46.14	21.10	31.70	92.29	1.57	6.88	0.12	2.87	0.54	0.42	0.63	0.63	1.85
EQT 0018 1-89A	2.06	3.09	9.02	13.20	19.80	57.82	0.99	1.20	4.34	0.13	3.62	0.57	0.44	0.66	1.93
EQT 0019 1-89B	2.06	3.09	9.02	13.20	19.80	57.82	0.99	1.20	4.34	0.13	3.62	0.57	0.44	0.66	1.93
EQT 0020 1-89C	2.06	3.09	9.02	13.20	19.80	57.82	0.99	1.20	4.34	0.13	3.62	0.57	0.44	0.66	1.93
EQT 0021 1-89D	2.06	3.09	9.02	13.20	19.80	57.82	0.99	1.20	4.34	0.13	3.62	0.57	0.44	0.66	1.93
EQT 0022 1-89E	2.06	3.09	9.02	13.20	19.80	57.82	0.99	1.20	4.34	0.13	3.62	0.57	0.44	0.66	1.93
EQT 0023 1-89F	2.06	3.09	9.02	13.20	19.80	57.82	0.99	1.20	4.34	0.13	3.62	0.57	0.44	0.66	1.93
EQT 0024 2-89	7.40	11.10	32.41	14.80	22.20	64.82	1.10	1.10	4.83	0.09	2.02	0.38	0.30	0.44	1.30
EQT 0025 4-89	2.10	9.83	9.20				0.19	0.91	0.85						
EQT 0026 6-89							0.31	1.57	1.38				2.97	14.84	13.00
EQT 0027 7-89													0.12	0.62	0.54
EQT 0028 6-89	2.51	2.51	0.07	11.63	0.30	0.83	0.83	0.02	0.77	0.77	0.02	0.94	0.94	0.02	0.02
EQT 0029 9-89	5.38	5.38	0.14	24.96	0.65	1.77	1.77	0.05	1.65	1.65	0.04	2.02	2.02	0.05	0.05
EQT 0030 10-89	17.94	87.86	78.57	4.64	22.14	20.31	<0.01	<0.01	<0.01	0.03	<0.01	4.65	23.50	20.37	
EQT 0031 29-89													0.01	0.05	0.05
EQT 0032 42-89													0.10	0.21	0.46
EQT 0033 43-89													0.05	0.26	0.23
EQT 0034 44-89													1.08	1.08	4.72
EQT 0035 30-94	0.48	13.01	2.08	0.09	2.39	0.38	<0.01	<0.01	<0.01	<0.01	0.33	9.11	1.44		
EQT 0036 1-95	1.92	2.88	8.40	24.60	71.83	0.87	1.04	3.83	0.12	2.79	0.53	0.41	0.62	0.62	1.80
EQT 0037 9-01	0.59	2.94	2.57	0.26	2.99	1.16	0.05	0.06	0.24	0.04	0.07	0.18	0.27	0.89	1.19
EQT 0038 WPT1-96	2.16	3.24	9.46	22.80	34.20	99.86	1.02	1.04	4.48	0.14	3.34	0.62	0.48	0.72	2.10
EQT 0039 WPT2-96	2.16	3.24	9.46	22.80	34.20	99.86	1.02	1.04	4.48	0.14	3.34	0.62	0.48	0.72	2.10

**EMISSION RATES FOR CRITERIA POLLUTANTS**

**AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Activity Number: PER20090006**  
**Permit Number: 0520-00145-V6**  
**Air - Title V Regular Permit Renewal**

Subject Item	CO			NOx			PM10			SO2			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lbs/hr	Max lbs/hr	Tons/Year	Avg lbs/hr	Max lbs/hr	Tons/Year	Avg lbs/hr	Max lbs/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
<b>Petro I and II Units</b>															
EQT 0040 WPT3-96	2.16	3.24	9.46	22.80	34.20	99.86	1.02	1.04	4.48	0.14	3.34	0.62	0.48	0.72	2.10
EQT 0041 WPT4-96	2.16	3.24	9.46	22.80	34.20	99.86	1.02	1.04	4.48	0.14	3.34	0.62	0.48	0.72	2.10
EQT 0042 WPT5-96	2.16	3.24	9.46	22.80	34.20	99.86	1.02	1.04	4.48	0.14	3.34	0.62	0.48	0.72	2.10
EQT 0043 WPT6-96		14.96					37.05		2.81		13.66			1.11	
EQT 0044 WPT7-96		14.96					37.05		2.81		13.66			1.11	
EQT 0045 WPT8-96									0.31	1.54	1.35			2.90	14.52
EQT 0047 WPT10-96	1.55	12.36	0.08	7.17	57.37	0.37	0.51	4.07	0.03	0.47	3.79	0.03	0.58	4.65	12.72
EQT 0048 WPT11-96	19.27	310.08	92.79	3.76	58.65	18.08	<0.01	<0.01	<0.01	0.04	0.01	8.26	194.37	36.16	
EQT 0049 WPT15-96													0.02	0.11	0.09
EQT 0050 WPT24-96													0.02	0.02	0.10
EQT 0051 WPT34-96													0.25	0.25	1.09
EQT 0052 WPT36-96													0.01	0.01	0.04
EQT 0053 WPT15-96	4.96	5.37	21.71	0.91	0.99	3.99	<0.01	<0.01	0.01	0.15	0.03	1.57	11.25	6.86	
EQT 0054 WPT38-96	10.86	10.86	0.91				0.10	0.10	<0.01				5.82	5.82	0.49
EQT 0055 12-89													<0.01	<0.01	0.02
EQT 0062 WPT3-04													0.13	0.13	0.55
EQT 0063 WPT4-04													1.16	1.16	5.09
EQT 0064 WPT2-04													0.38	3.18	1.66
EQT 0098 WPT1-08													0.2		0.87
EQT 0105 WPT1-10	9.20	13.80	40.30	8.74	13.11	38.28	0.98	1.02	4.29	0.14	3.27	0.59	0.46	0.69	2.01
FUG 0003 5-89													4.84	13.21	21.21
FUG 0004 WPT1-2-96													8.34		36.53
GRP 0004 BOILERS	8.78	38.45	24.70		108.19	2.11	9.26	4.97			21.77	0.71			3.11

**EMISSION RATES FOR CRITERIA POLLUTANTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)

Activity Number: PER20090006

Permit Number: 0520-00145-V6

Air - Title V Regular Permit Renewal

Subject Item	CO			NOx			PM10			SO2			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year												
Petro I and II Units															
GRP 0005 FURNACES			118.80			520.34									

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote.

**EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)

Activity Number: PER20090006

Permit Number: 0520-00145-V6

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0017 31-85	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	<0.01	<0.01	<0.01
	Ethyl benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Naphthalene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
EQT 0018 1-89A	n-Hexane	<0.01	<0.01	<0.01
	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	<0.01	<0.01	<0.01
	Ethyl benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Naphthalene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
EQT 0019 1-89B	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	n-Hexane	<0.01	<0.01	<0.01
	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	<0.01	<0.01	<0.01
	Ethyl benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Naphthalene	<0.01	<0.01	<0.01
EQT 0020 1-89C	Toluene	<0.01	<0.01	<0.01
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	n-Hexane	<0.01	<0.01	<0.01
	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	<0.01	<0.01	<0.01

**EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)

Activity Number: PER20090006

Permit Number: 0520-00145-V6

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0020 1-89C	Toluene	<0.01	<0.01	<0.01
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	n-Hexane	<0.01	<0.01	<0.01
EQT 0021 1-89D	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	<0.01	<0.01	<0.01
	Ethyl benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Naphthalene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	n-Hexane	<0.01	<0.01	<0.01
EQT 0022 1-89E	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	<0.01	<0.01	<0.01
	Ethyl benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Naphthalene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	n-Hexane	<0.01	<0.01	<0.01
EQT 0023 1-89F	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	<0.01	<0.01	<0.01
	Ethyl benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Naphthalene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	n-Hexane	<0.01	<0.01	<0.01
EQT 0024 2-69	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	<0.01	<0.01	<0.01

**EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)

Activity Number: PER20090006

Permit Number: 0520-00145-V6

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0024 2-89	Ethyl benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Naphthalene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	n-Hexane	<0.01	<0.01	<0.01
EOT 0025 4-89	Chromium VI (and compounds)	0.002	0.002	0.001
	Manganese (and compounds)	<0.01	<0.01	<0.01
	Nickel (and compounds)	0.002	0.002	0.001
	Zinc (and compounds)	0.002	0.002	0.001
EQT 0026 6-89	1,3-Butadiene	0.02	0.09	0.08
	Benzene	<0.01	<0.01	<0.01
	Bromoform	0.02	0.09	0.08
	Chloroform	0.01	0.05	0.05
EQT 0030 10-89	1,3-Butadiene	0.04	0.20	0.16
	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	0.04	0.23	0.19
	Ethyl benzene	<0.01	<0.01	0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Naphthalene	<0.01	<0.01	<0.01
	Styrene	0.01	0.04	0.03
	Toluene	0.01	0.08	0.06
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
EQT 0032 42-89	n-Hexane	<0.01	<0.01	<0.01
	1,3-Butadiene	0.02	0.21	0.08
	Benzene	<0.01	<0.01	0.02
	Ethyl benzene	<0.01	<0.01	<0.01
	Styrene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
EQT 0033 43-89	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	1,3-Butadiene	0.001	0.007	0.004
	Benzene	0.02	0.10	0.09

**EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)

Activity Number: PER20090006

Permit Number: 0520-00145-V6

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0033 43-89	Ethyl benzene	<0.01	0.01	<0.01
	Styrene	0.01	0.03	0.03
	Toluene	0.01	0.05	0.04
	Xylene (mixed isomers)	<0.01	0.01	<0.01
EQT 0034 44-89	1,3-Butadiene	0.03	0.03	0.12
	Benzene	<0.01	<0.01	<0.01
EQT 0035 30-94	1,3-Butadiene	0.12	4.88	0.54
	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	0.05	0.17	0.23
	Ethyl benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Naphthalene	<0.01	<0.01	<0.01
	Styrene	<0.01	<0.01	<0.01
	Toluene	<0.01	0.01	<0.01
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
EQT 0036 1-95	n-Hexane	<0.01	<0.01	<0.01
	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	<0.01	<0.01	<0.01
	Ethyl benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Naphthalene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
EQT 0037 9-01	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	n-Hexane	<0.01	<0.01	<0.01
	1,3-Butadiene	0.05	1.85	0.22
	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	0.05	0.23	0.24
	Ethyl benzene	<0.01	0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Naphthalene	<0.01	<0.01	<0.01

**EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

**AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Activity Number: PER20090006**  
**Permit Number: 0520-00145-V6**  
**Air - Title V Regular Permit Renewal**

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0037 9-01	Styrene	<0.01	0.03	0.03
	Toluene	0.01	0.05	0.05
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	n-Hexane	<0.01	<0.01	<0.01
EQT 0038 WPT1-96	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	<0.01	<0.01	<0.01
	Ethyl benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Naphthalene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	n-Hexane	<0.01	<0.01	<0.01
EQT 0039 WPT2-96	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	<0.01	<0.01	<0.01
	Ethyl benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Naphthalene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	n-Hexane	<0.01	<0.01	<0.01
EQT 0040 WPT3-96	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	<0.01	<0.01	<0.01
	Ethyl benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Naphthalene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	n-Hexane	<0.01	<0.01	<0.01
EQT 0041 WPT4-96	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001

**EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)

Activity Number: PER20090006

Permit Number: 0520-00145-V6

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0041 WPT4-96	Benzene	<0.01	<0.01	<0.01
	Ethyl benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Naphthalene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	n-Hexane	<0.01	<0.01	<0.01
EQT 0042 WPT5-96	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	<0.01	<0.01	<0.01
	Ethyl benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Naphthalene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	n-Hexane	<0.01	<0.01	<0.01
EQT 0043 WPT6-96	1,1,1-Trichloroethane		<0.01	
	1,3-Butadiene		<0.001	
	Acetaldehyde		<0.01	
	Acrolein		<0.001	
	Benzene		0.03	
	Ethyl benzene		<0.01	
	Formaldehyde		0.05	
	Naphthalene		<0.01	
	Styrene		<0.01	
	Toluene		0.02	
	Xylene (mixed isomers)		<0.01	
EQT 0044 WPT7-96	n-Hexane		<0.01	
	1,1,1-Trichloroethane		<0.01	
	1,3-Butadiene		<0.001	
	Acetaldehyde		<0.01	
	Acrolein		<0.001	
	Benzene		0.03	

**EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

**AJ ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Activity Number: PER20090006**  
**Permit Number: 0520-00145-V6**  
**Air - Title V Regular Permit Renewal**

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0044 WPT7-96	Ethyl benzene		<0.01	
	Formaldehyde		0.05	
	Naphthalene		<0.01	
	Styrene		<0.01	
	Toluene		0.02	
	Xylene (mixed isomers)		<0.01	
	n-Hexane		<0.01	
EOT 0045 WPT8-96	1,3-Butadiene	0.02	0.09	0.08
	Benzene	<0.01	<0.01	<0.01
	Bromoform	0.02	0.10	0.09
	Chloroform	0.01	0.06	0.05
EQT 0048 WPT11-96	1,3-Butadiene	0.49	11.69	2.14
	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	0.22	5.33	0.98
	Ethyl benzene	0.01	0.10	0.04
	Formaldehyde	<0.01	<0.01	0.01
	Naphthalene	<0.01	<0.01	<0.01
	Styrene	0.01	0.25	0.05
	Toluene	0.04	1.00	0.19
	Xylene (mixed isomers)	<0.01	0.01	<0.01
EQT 0050 WPT24-96	n-Hexane	<0.01	<0.01	<0.01
	1,3-Butadiene	0.001	0.001	0.004
	Benzene	<0.01	0.001	<0.01
	Ethyl benzene	<0.01	<0.01	<0.01
	Styrene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
EQT 0051 WPT34-96	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	1,3-Butadiene	0.05	0.05	0.20
	Benzene	<0.01	<0.01	<0.01
	Ethyl benzene	<0.01	<0.01	<0.01
	Styrene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01

**EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)

Activity Number: PER20090006

Permit Number: 0520-00145-V6

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0051 WPT34-96	Xylene (mixed isomers)	<0.01	<0.01	<0.01
EQT 0052 WPT36-96	Benzene	0.01	0.01	0.04
EQT 0053 WPT35-98	1,3-Butadiene	0.50	0.50	2.17
	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.001	<0.001	<0.001
	Benzene	0.05	0.16	0.20
	Ethyl benzene	0.01	0.02	0.06
	Formaldehyde	0.01	0.01	0.05
	Naphthalene	<0.01	<0.01	<0.01
	Styrene	<0.01	<0.01	<0.01
	Toluene	<0.01	0.01	0.01
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	n-Hexane	<0.01	<0.01	<0.01
EQT 0056 30-89	Sulfuric acid	<0.01	<0.01	<0.01
EQT 0057 WPT20-96	Sulfuric acid	<0.01	<0.01	<0.01
EQT 0058 WPT26-96	Sulfuric acid	<0.01	<0.01	<0.01
EQT 0059 WPT28-96	Sulfuric acid	<0.01	<0.01	<0.01
EQT 0060 1-04	Sulfuric acid	<0.01	<0.01	<0.01
EQT 0062 WPT3-04	1,3-Butadiene	0.02	0.02	0.10
	Benzene	<0.01	<0.01	<0.01
	Ethyl benzene	<0.01	<0.01	<0.01
	Styrene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
EQT 0063 WPT4-04	1,3-Butadiene	<0.001	<0.001	<0.001
	Benzene	<0.01	<0.001	<0.01
	Ethyl benzene	<0.01	<0.001	<0.01
	Hydrogen sulfide	<0.01	<0.001	<0.01
	Naphthalene	0.12	0.12	0.51
	Styrene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
EQT 0064 WPT2-04	1,3-Butadiene	<0.001	<0.001	<0.001
	Benzene	<0.01	<0.01	<0.01

**EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

**AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)**  
**Activity Number: PER20090006**  
**Permit Number: 0520-00145-V6**  
**Air - Title V Regular Permit Renewal**

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0064 WPT2-04	Ethyl benzene	<0.01	<0.01	<0.01
	Hydrogen sulfide	<0.01	<0.01	<0.01
	Naphthalene	0.04	0.04	0.17
	Styrene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
EQT 0098 WPT1-08	Benzene	0.002		<0.01
	Ethyl benzene	<0.001		<0.01
	Methyl Tertiary Butyl Ether	0.03		0.12
	Toluene	0.002		<0.01
	Xylene (mixed isomers)	0.001		<0.01
	n-Hexane	0.001		<0.01
EQT 0105 WPT1-10	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.01	<0.01	<0.01
	Benzene	<0.01	<0.01	<0.01
	Ethyl benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Naphthalene	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
	Xylene (mixed isomers)	<0.01	<0.01	<0.01
	n-Hexane	<0.01	<0.01	<0.01
FUG 0003 5-89	1,3-Butadiene	0.37	1.13	1.61
	Benzene	0.16	0.54	0.72
	Ethyl benzene	0.01	0.02	0.03
	Styrene	0.07	0.22	0.32
	Toluene	0.04	0.14	0.19
	Xylene (mixed isomers)	0.01	0.02	0.03
	n-Hexane	0.04	0.13	0.19
FUG 0004 WPT12-96	1,3-Butadiene	13.53		3.43
	Benzene	0.73		2.64
	Ethyl benzene	<0.01		0.02
	Naphthalene	<0.01		<0.01
	Styrene	0.03		0.12
	Toluene	0.08		0.34

**EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)

Activity Number: PER20090006

Permit Number: 0520-00145-V6

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
FUG 0004 WPT12-96	Xylene (mixed isomers)	<0.01		0.02
	n-Hexane	0.01		0.04
GRP 0004 BOILERS	1,1,1-Trichloroethane	<0.01		<0.01
	1,3-Butadiene	0.001		0.002
	Acetaldehyde	<0.01		<0.01
	Acrolein	<0.001		<0.001
	Benzene	0.03		0.14
	Ethyl benzene	<0.01		<0.01
	Formaldehyde	0.02		0.11
	Naphthalene	<0.01		<0.01
	Styrene	<0.01		<0.01
	Toluene	0.01		0.04
UNF 0001 Facility	Xylene (mixed isomers)	<0.01		<0.01
	n-Hexane	<0.01		<0.01
	1,1,1-Trichloroethane			<0.01
	1,3-Butadiene			10.94
	Acetaldehyde			0.01
	Acrolein			0.01
	Benzene			5.49
	Bromoform			0.17
	Chloroform			0.10
	Chromium VI (and compounds)			0.001
	Ethyl benzene			0.16
	Formaldehyde			0.17
	Hydrogen sulfide			<0.01
	Manganese (and compounds)			0.001
	Methyl Tertiary Butyl Ether			0.12
	Naphthalene			0.68
	Nickel (and compounds)			0.001
	Styrene			0.58
	Sulfuric acid			<0.01
	Toluene			0.92
	Xylene (mixed isomers)			0.05

**EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)

Activity Number: PER20090006

Permit Number: 0520-00145-V6

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
UNF 0001 Facility	Zinc (and compounds)			0.001
	n-Hexane			0.23

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote. Emission rates attributed to the UNF reflect the sum of the TAP/HAP limits of the individual emission points (or caps) under this permit, but do not constitute an emission cap.

**SPECIFIC REQUIREMENTS****AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro II/Petro II)****Activity Number: PER200900006****Permit Number: 0520-00145-V6****Air - Title V Regular Permit Renewal****EQT 0017 31-85 - Zurn Steam Boiler No. 2**

- 1 [40 CFR 52.] Nitrogen oxides <= 0.1 lb/MMBTU Using Low NOX burners and FGR (PSD-LA-554(M2)). [40 CFR 52, LAC 33:III.509]  
Which Months: All Year Statistical Basis: Thirty-day rolling average  
Good design, proper operating practice and PEMS are determined as BACT for NOX and CO emissions (PSD-LA-554(M2)). [LAC 33:III.509, 40 CFR 52]
- 2 [40 CFR 52.] Nitrogen oxides <= 0.10 lb/MMBTU heat input (expressed as NO2). The nitrogen oxide standards apply at all times, including periods of startup, shutdown, or malfunction. Subpart Db.
- 3 [40 CFR 60.44(b)] Which Months: All Year Statistical Basis: Thirty-day rolling average  
Conduct performance testing to demonstrate compliance with the nitrogen oxides emission standards in 40 CFR 60.44b by following 40 CFR 60.46(e) or (f), or following 40 CFR 60.46b(g) and (h), as applicable. Subpart Db [40 CFR 60.46b(c)]

- Comply with the provisions of 40 CFR 60.48b(b), (c), (d), (e)(2), (e)(3), and (f), or monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in a plan submitted pursuant to 60.49b(c). Subpart Db. [40 CFR 60.48b(g)]  
Submit notification: Due as provided by 40 CFR 60.7. Submit a notification of the actual date of initial startup including design heat input capacity of the affected facility, identification of fuels to be combusted, copy of any federally enforceable requirement limiting annual capacity factor, and all other data as specified in 40 CFR 60.49b(a)(1) through (a)(4). Subpart Db. [40 CFR 60.49b(a)]  
Submit plan: Due within 360 days of initial startup to DEQ for approval. The plan must identify the operating conditions to be monitored under 40 CFR 60.48b(g)(2), the records to be maintained under 40 CFR 60.49b(g), and all other information as specified in 40 CFR 60.49b(c)(1) through (c)(3). If the plan is approved, maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. Subpart Db. [40 CFR 60.49b(c)]  
Fuel rate recordkeeping by electronic or hard copy daily. Record the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period.  
Determine the annual capacity factor on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. Subpart Db. [40 CFR 60.49b(d)]  
Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records of the information listed in 40 CFR 60.49b(g)(1) through (g)(10) for each steam generating unit operating day, except as provided under 40 CFR 60.49b(p). Subpart Db. [40 CFR 60.49b(g)]  
Submit excess emissions report: Due by the 30th day following the end of each six-month period. Report any excess emissions which occurred during the reporting period. Subpart Db. [40 CFR 60.49b(h)]  
Maintain all records required under 40 CFR 60.49b for a period of 2 years following the date of such record. Subpart Db. [40 CFR 60.49b(o)]  
Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
Which Months: All Year Statistical Basis: None specified  
Total suspended particulate <= 0.6 lb/MMBTU of heat input  
Which Months: All Year Statistical Basis: None specified

**EQT 0024 2-89 - Zurn Steam Boiler No. 1**

**SPECIFIC REQUIREMENTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro II/Petro II)  
**Activity Number:** PER20090006  
**Permit Number:** 0520-00145-V6  
**Air - Title V Regular Permit Renewal**

**EQT 0024 2-89 - Zurn Steam Boiler No. 1**

- Good design, proper operating practice and PEMS are determined as BACT for NOX and CO emissions (PSD-LA-554(M2)). [LAC 33:III.509.  
 40 CFR 52.]
- Nitrogen oxides <= 0.2 lb/MMBTU Using Low NOX burners and FGR (PSD-LA-554(M2)).
- Which Months: All Year Statistical Basis: Thirty-day rolling average
- Nitrogen oxides <= 0.10 lb/MMBTU heat input (expressed as NO<sub>2</sub>). The nitrogen oxide standards apply at all times, including periods of startup, shutdown, or malfunction. Subpart Db.
- Which Months: All Year Statistical Basis: Thirty-day rolling average
- Conduct performance testing to demonstrate compliance with the nitrogen oxides emission standards in 40 CFR 60.44b by following 40 CFR 60.46b(e) or (f), or following 40 CFR 60.46b(g) and (h), as applicable. Subpart Db. [40 CFR 60.46b(c)]
- Comply with the provisions of 40 CFR 60.48b(b), (c), (d), (e)(2), (e)(3), and (f), or monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in a plan submitted pursuant to 60.49b(c). Subpart Db. [40 CFR 60.48b(g)]
- Submit notification: Due as provided by 40 CFR 60.7. Submit a notification of the actual date of initial startup including design heat input capacity of the affected facility, identification of fuels to be combusted, copy of any federally enforceable requirement limiting annual capacity factor, and all other data as specified in 40 CFR 60.49b(a)(1) through (a)(4). Subpart Db. [40 CFR 60.49b(a)]
- Submit plan: Due within 360 days of initial startup to DEQ for approval. The plan must identify the operating conditions to be monitored under 40 CFR 60.48b(g)(2), the records to be maintained under 40 CFR 60.49b(g), and all other information as specified in 40 CFR 60.49b(c)(1) through (c)(3). If the plan is approved, maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. Subpart Db. [40 CFR 60.49b(c)]
- Fuel rate recordkeeping by electronic or hard copy daily. Record the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. Determine the annual capacity factor on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. Subpart Db. [40 CFR 60.49b(d)]
- Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records of the information listed in 40 CFR 60.49b(g)(1) through (g)(10) for each steam generating unit operating day, except as provided under 40 CFR 60.49b(p). Subpart Db. [40 CFR 60.49b(g)]
- Submit excess emissions report: Due by the 30th day following the end of each six-month period. Report any excess emissions which occurred during the reporting period. Subpart Db. [40 CFR 60.49b(h)]
- Maintain all records required under 40 CFR 60.49b for a period of 2 years following the date of such record. Subpart Db. [40 CFR 60.49b(o)]
- Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
- Which Months: All Year Statistical Basis: None specified
- Total suspended particulates <= 0.6 lb/MMBTU of heat input.
- Which Months: All Year Statistical Basis: None specified

**EQT 0025 4-89 - Decoking Drum**

**SPECIFIC REQUIREMENTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)

Activity Number: PER20090006  
 Permit Number: 0520-00145-V6  
 Air - Title V Regular Permit Renewal

**EQT 0025 4-89 - Decoking Drum**

- 27 [LAC 33:III.1305]  
 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.1-7.
- 28 [LAC 33:III.Chapter 51]  
 Toxic air pollutants (TAP): Shall comply with all LAC 33:III.1305 determined as MACT.

**EQT 0026 6-89 - Cooling Tower**

- 29 [40 CFR 52.]  
 Shall be equipped with mist eliminators to control PM/PM10 (PSD-LA-554(M2)). [40 CFR 52. LAC 33:III.509]  
 Shall comply with all applicable provisions of the 40 CFR 63 Subpart A - General Provisions.
- 30 [40 CFR 63.1 - 15]  
 Shall comply with all applicable provisions of 40 CFR 63, Subpart XX - Heat Exchange Systems, 40 CFR 63.1085 through 1090, by July 12, 2005.
- 31 [40 CFR 63.1085-1090]  
 Shall comply with 40 CFR 63 Subpart YY Generic MACT by complying with all applicable provisions of 40 CFR 63, Subpart XX - Heat Exchange Systems, 40 CFR 63.1085 through 1090, by July 12, 2005. [40 CFR 63.1103(e)(Table 7(h))]
- 32 [40 CFR 63.1103(e)(Table 7(h))]  
 Shall comply with all applicable provisions of 40 CFR 63 Subpart XX - Heat Exchange Systems, 40 CFR 63.1085 through 63.1090.
- 33 [LAC 33:III.5109]  
 Shall comply with all applicable provisions of 40 CFR 63 Subpart XX - Heat Exchange Systems, 40 CFR 63.1085 through 63.1090.

**EQT 0028 8-89 - Emergency Generator**

- 34 [40 CFR 52.]  
 Shall comply with all applicable provisions of Permit PSD-LA-554(M-2). No additional control is determined as BACT. [40 CFR 52, LAC 33:III.509]  
 Opacity <= 20 percent, except during soot blowing or lancing, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: None specified  
 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: Six-minute average
- 35 [LAC 33:III.1101.B]  
 Shall comply with all applicable provisions of Permit PSD-LA-554(M-2). No additional control is determined as BACT. [40 CFR 52, LAC 33:III.509]  
 Opacity <= 20 percent, except during the soot blowing or lancing, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: None specified  
 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: Six-minute average

**EQT 0029 9-89 - Diesel Firewater Pump**

- 37 [40 CFR 52.]  
 Shall comply with all applicable provisions of Permit PSD-LA-554(M-2). No additional control is determined as BACT. [40 CFR 52, LAC 33:III.509]  
 Opacity <= 20 percent, except during the soot blowing or lancing, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: None specified  
 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: Six-minute average
- 38 [LAC 33:III.1101.B]  
 Shall comply with all applicable provisions of Permit PSD-LA-554(M-2). No additional control is determined as BACT. [40 CFR 52, LAC 33:III.509]  
 Opacity <= 20 percent, except during the soot blowing or lancing, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: None specified  
 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: Six-minute average
- 39 [LAC 33:III.1311.C]  
 Shall comply with all applicable provisions of Permit PSD-LA-554(M-2). No additional control is determined as BACT. [40 CFR 52, LAC 33:III.509]  
 Opacity <= 20 percent, except during the soot blowing or lancing, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: None specified  
 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: Six-minute average

**EQT 0030 10-89 - Flare**

**SPECIFIC REQUIREMENTS**

**AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro II/Petro II)**  
**Activity Number: PER20090006**  
**Permit Number: 0520-00145-V6**  
**Air - Title V Regular Permit Renewal**

**EQT 0030 10-89 - Flare**

- 40 [40 CFR 52] Shall comply with all applicable provisions of 40 CFR 60.18 per PSD-LA-554(M2). [40 CFR 52, LAC 33:III.509]  
 41 [40 CFR 60.1 - 18] Shall comply with all applicable provisions of 40 CFR 60 Subpart A - General Provisions.  
 42 [40 CFR 61.01 - 19] Shall comply with all applicable provisions of 40 CFR 61 Subpart A - General Provisions.  
 43 [40 CFR 61.342] Shall comply with 40 CFR 61. Subpart FF by complying with 40 CFR 63.11(b) per 40 CFR 63.1103(e) Table 7(d), 40 CFR 63.982(a) and 40 CFR 63.987.  
 44 [40 CFR 63.1 - 15] Shall comply with all applicable provisions of the 40 CFR 63 Subpart A - General Provisions.  
 45 [40 CFR 63.1103(e)(Table 7)h] Shall comply with 40 CFR 63 Subpart YY Generic MACT by complying with 40 CFR 63.1103(c) Table 7(d), 40 CFR 63.982(a) and 40 CFR 63.987. [40 CFR 63.1103(e)(Table 7)h]  
 46 [LAC 33:III.1105] Submit notification: Due to the Office of Environmental Compliance as soon as possible after the start of burning of pressure valve releases for control over process upsets. Notify in accordance with LAC 33:1.3923. Notification is required only if the upset cannot be controlled in six hours.  
 47 [LAC 33:III.1105] Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets.  
 Which Month(s): All Year Statistical Basis: None specified  
 48 [LAC 33:III.1107] Submit report: Due in writing to the Office of Environmental Compliance, Surveillance Division, within seven calendar days after startup or shutdown, if flaring was not the result of failure to maintain or repair equipment. Submit report if requesting exemption from the provisions of LAC 33:III.1105. Explain the conditions and duration of the startup or shutdown and list the steps necessary to remedy, prevent and limit the excess emissions. Minimize flaring and ensure that no ambient air quality standards are jeopardized.  
 49 [LAC 33:III.131.C] Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Month(s): All Year Statistical Basis: Six-minute average  
 Toxic air pollutants (TAP): Shall comply with all applicable provisions of 40 CFR 63.11(b).

**EQT 0032 42-89 - Temporary Oily Sludge Storage Vessels (Frac Tanks)**

- 51 [40 CFR 61.342] Vents shall be routed to carbon canisters that meet requirements of 40 CFR 61.345(a).  
 52 [40 CFR 61.1095] Vents shall be routed to carbon canisters that meet requirements of 40 CFR 61.345(a).  
 53 [40 CFR 63.1103(e)(Table 7)g] Vents shall be routed to carbon canisters that meet requirements of 40 CFR 61.345(a). [40 CFR 63.1103(e)(Table 7)g]  
 54 [LAC 33:III.5109] Vents shall be routed to carbon canisters that meet requirements of 40 CFR 61.345(a).

**EQT 0034 44-89 - Petro I Analyzers**

- 55 [LAC 33:III.5109] No additional control is required. Determined as MACT.

**EQT 0035 30-94 - Co-Products Flare**

**SPECIFIC REQUIREMENTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)

Activity Number: PER20090006

Permit Number: 0520-00145-V6

Air - Title V Regular Permit Renewal

**EQT 0035 30-94 - Co-Products Flare**

- 56 [40 CFR 52.] Shall comply with all applicable provisions of 40 CFR 60.18 per PSD-LA-554(M2). [40 CFR 52, LAC 33:III.509]  
 Shall comply with 40 CFR 61, Subpart FF by complying with 40 CFR 63.11(b) per 40 CFR 63.1100(g)(6)(C)(ii), 40 CFR 63.1103(e) Table 7(e), 40 CFR 63.982(a) and 40 CFR 63.987.
- 57 [40 CFR 61.342] Shall comply with 40 CFR 63 Subpart YY Generic MACT by complying with 40 CFR 63.11(b) per 40 CFR 63.1103(e) Table 7(e), 40 CFR 63.982(a) and 40 CFR 63.987. [40 CFR 63.1103(e)(Table 7)(e)]
- 58 [40 CFR 63.1103(e)(Table 7)(e)] Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets.
- 59 [LAC 33:III.1105] Which Months: All Year Statistical Basis: None specified  
 Submit notification: Due to the Office of Environmental Compliance as soon as possible after the start of burning of pressure valve releases for control over process upsets. Notify in accordance with LAC 33:1.3923. Notification is required only if the upset cannot be controlled in six hours.

60 [LAC 33:III.1105] Submit report: Due in writing to the Office of Environmental Compliance, Surveillance Division, within seven calendar days after startup or shutdown, if flaring was not the result of failure to maintain or repair equipment. Submit report if requesting exemption from the provisions of LAC 33:III.1105. Explain the conditions and duration of the startup or shutdown and list the steps necessary to remedy, prevent and limit the excess emissions. Minimize flaring and ensure that no ambient air quality standards are jeopardized.

61 [LAC 33:III.1107] Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: Six-minute average  
 Toxic air pollutants (TAP): Shall comply with all applicable provisions of 40 CFR 63.11(b).

**EQT 0036 1-95 - Pyrolysis Furnace (ABB Lummus)**

- 64 [40 CFR 52.] Oxygen >= 2.5 percent, in combination with good design, proper operating practice and PEMS are determined as BACT for NOX and CO emissions (PSD-LA-595). [40 CFR 52, LAC 33:III.509]  
 Which Months: All Year Statistical Basis: Thirty-day rolling average  
 Nitrogen oxides <= 0.16 lb/MMBTU Using Low NOX burners (PSD-LA-554(M2)). [40 CFR 52, LAC 33:III.509]  
 Which Months: All Year Statistical Basis: Thirty-day rolling average  
 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: None specified  
 Total suspended particulate <= 0.6 lb/MMBTU of heat input.  
 Which Months: All Year Statistical Basis: None specified

**EQT 0037 9-01 - Thermal Oxidizer**

- 68 [40 CFR 61.349] Shall maintain firebox temperature =>1400 F for at least 0.5 second to ensure minimum DRE > 98%, except while the back up Carbon Adsorption System is in service.

**SPECIFIC REQUIREMENTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)

Activity Number: PER20090006  
 Permit Number: 0520-00145-V6  
 Air - Title V Regular Permit Renewal

**EQT 0037 9-01 - Thermal Oxidizer**

- 69 [40 CFR 63.1095] VOHAP: Shall maintain minimum DRE > 98%.
- 70 [40 CFR 63.1103(e)(Table 7)(a)] Shall maintain minimum DRE > 98% by July 12, 2005. [40 CFR 63.1103(e)(Table 7)(a)(ii)]  
 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: None specified  
 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
- 71 [LAC 33:III.1101.B] Which Months: All Year Statistical Basis: Six-minute average  
 The Carbon Adsorption System (carbon canister) may be used in lieu of the Thermal Oxidizer by no more than 240 hours per year. Operating time <= 240 hr/yr.  
 Shall maintain minimum DRE > 98%.

**EQT 0045 WPT8-96 - Cooling Tower (PA-1501)**

- 75 [40 CFR 52.] Shall be equipped with mist eliminators to control PM/PM10 (PSD-LA-554(M2)). [40 CFR 52. LAC 33:III.509]  
 Shall comply with all applicable provisions of 40 CFR 63, Subpart XX - Heat Exchange Systems, 40 CFR 63.1085 through 1090, by July 12, 2005.
- 76 [40 CFR 63.1085-1090] Shall comply with 40 CFR 63 Subpart YY Generic MACT by complying with all applicable provisions of 40 CFR 63, Subpart XX - Heat Exchange Systems, 40 CFR 63.1085 through 1090, by July 12, 2005. [40 CFR 63.1103(e)(Table 7)(h)]  
 Shall comply with all applicable provisions of 40 CFR 63 Subpart XX - Heat Exchange Systems, 40 CFR 63.1085 through 63.1090.

**EQT 0047 WPT10-96 - Diesel Firewater Pumps (PA-1602)**

- 79 [40 CFR 52.] Shall comply with all applicable provisions of Permit PSD-LA-595. No additional control is determined as BACT. [40 CFR 52. LAC 33:III.509]  
 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: None specified  
 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
- 80 [LAC 33:III.1101.B] Which Months: All Year Statistical Basis: Six-minute average

**EQT 0048 WPT11-96 - Flare (PA-2201)**

- 82 [40 CFR 52] Shall comply with all applicable provisions of 40 CFR 60.18 per PSD-LA-554(M2). [40 CFR 52. LAC 33:III.509]  
 Shall comply with 40 CFR 61, Subpart FF by complying with 40 CFR 63.1100(g)(6)(C)(ii), 40 CFR 63.1103(e) Table 7(e), 40 CFR 63.982(a) and 40 CFR 63.987.

**SPECIFIC REQUIREMENTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro II/Petro II)  
 Activity Number: PER20090006  
 Permit Number: 0520-00145-V6  
 Air - Title V Regular Permit Renewal

**EQT 0048 WPT11-96 - Flare (PA-2201)**

- 84 [40 CFR 63.1095] Shall comply with 40 CFR 63.11(b) to ensure destruction efficiency of > 98%.
- 85 [40 CFR 63.1103(e)(Table 7)(c)] Shall comply with 40 CFR 63 Subpart YY Generic MACT by complying with 40 CFR 63.11(b) per 40 CFR 63.1103(e) Table 7(d), 40 CFR 63.982(a) and 40 CFR 63.987 by July 12, 2005. [40 CFR 63.1103(e)(Table 7)(d)]
- 86 [LAC 33:III.1105] Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets.
- 87 [LAC 33:III.1105] Which Months: All Year Statistical Basis: None specified  
 Submit notification: Due to the Office of Environmental Compliance as soon as possible after the start of burning of pressure valve releases for control over process upsets. Notify in accordance with LAC 33:1.3923. Notification is required only if the upset cannot be controlled in six hours.
- 88 [LAC 33:III.1107] Submit report: Due in writing to the Office of Environmental Compliance, Surveillance Division, within seven calendar days after startup or shutdown, if flaring was not the result of failure to maintain or repair equipment. Submit report if requesting exemption from the provisions of LAC 33:III.1105. Explain the conditions and duration of the startup or shutdown and list the steps necessary to remedy, prevent and limit the excess emissions. Minimize flaring and ensure that no ambient air quality standards are jeopardized.
- 89 [LAC 33:III.1131.C] Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
- 90 [LAC 33:III.5109] Which Months: All Year Statistical Basis: Six-minute average  
 Toxic air pollutants (TAP): Shall comply with all applicable provisions of 40 CFR 63.11(b).

**EQT 0050 WPT24-96 - Stormwater Holding Tank (FB1807)**

- 91 [LAC 33:III.5109] Vents shall be routed to carbon canisters.

**EQT 0051 WPT34-96 - Py-Gas Storage Tank (TK-103)**

- 92 [40 CFR 63.1103(e)(Table 7)(t)] Shall be equipped with an IFR with liquid mounted seals. [40 CFR 63.1103(e)(Table 7)(b)]  
 93 [LAC 33:III.2103.C.1.a] Equip internal floating roof with a liquid mounted seal consisting of a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.
- 94 [LAC 33:III.2103.C.2] Provide each opening in the internal floating roof (except rim space vents and automatic bleeder vents) with a projection below the liquid surface. In addition, provide each opening (except for leg sleeves, bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains) with a cover equipped with a gasket. Equip automatic bleeder vents and rim space vents with gaskets and equip ladder wells with a sliding cover.
- 95 [LAC 33:III.2103.H.3] Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.
- 96 [LAC 33:III.2103.I] Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable.
- 97 [LAC 33:III.5109] Shall be equipped with an IFR with liquid mounted seals.

**SPECIFIC REQUIREMENTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro II/Petro II)

Activity Number: PER20090006

Permit Number: 0520-00145-V6

Air - Title V Regular Permit Renewal

**EQT 0052 WPT36-96 - Cracking Tar Drum**

- 98 [40 CFR 61.342] Vents shall be routed to carbon canisters that meet requirements of 40 CFR 61.345(a).  
 99 [40 CFR 63.1095(b)] Vents shall be routed to carbon canisters. [40 CFR 63.1095(b)]  
 100 [40 CFR 63.1103(e)(Table 7)(f)] Vents shall be routed to carbon canisters. [40 CFR 63.1103(e)(Table 7)(g)]  
 101 [LAC 33:III.5109] Vents shall be routed to carbon canisters.

**EQT 0053 WPT35-98 - Ground Flare**

- 102 [40 CFR 61.342] Shall comply with 40 CFR 61, Subpart FF by complying with 40 CFR 63.11(b) per 40 CFR 63.1100(g)(6)(C)(ii), 40 CFR 63.1103(c) Table 7(d) and (g), 40 CFR 63.982(a) and 40 CFR 63.987.  
 103 [40 CFR 63.1095] Shall comply with 40 CFR 63.11(b) to ensure destruction efficiency of >98%.  
 104 [40 CFR 63.1103(e)(Table 7)(g)] Shall comply with 40 CFR 63 Subpart YY Generic MACT by complying with 40 CFR 63.11(b) per 40 CFR 63.1103(c) Table 7(d) and (g), 40 CFR 63.982(a) and 40 CFR 63.987. [40 CFR 63.1103(e)(Table 7)(g)]  
 Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets.  
 Which Months: All Year Statistical Basis: None specified  
 Submit notification: Due to the Office of Environmental Compliance as soon as possible after the start of burning of pressure valve releases for control over process upsets. Notify in accordance with LAC 33:1.3923. Notification is required only if the upset cannot be controlled in six hours.  
 Submit report: Due in writing to the Office of Environmental Compliance, Surveillance Division, within seven calendar days after startup or shutdown, if flaring was not the result of failure to maintain or repair equipment. Submit report if requesting exemption from the provisions of LAC 33:III.1105. Explain the conditions and duration of the startup or shutdown and list the steps necessary to remedy, prevent and limit the excess emissions. Minimize flaring and ensure that no ambient air quality standards are jeopardized.  
 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: Six-minute average  
 The flare shall comply with 40 CFR 60.18.  
 The flare shall comply with 40 CFR 60.18.  
 Toxic air pollutants (TAP): Shall comply with all applicable provisions of 40 CFR 63.11(b).

**EQT 0062 WPT3-04 - Pyrolysis Gasoline Storage Tank**

- 112 [LAC 33:III.2103.C.1.c] Equip internal floating roof with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

**SPECIFIC REQUIREMENTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)

Activity Number: PER20090006

Permit Number: 0520-00145-V6

Air - Title V Regular Permit Renewal

**EQT 0062 WPT3-04 - Pyrolysis Gasoline Storage Tank**

Provide each opening in the internal floating roof (except rim space vents and automatic bleeder vents) with a projection below the liquid surface. In addition, provide each opening (except for leg sleeves, bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains) with a cover equipped with a gasket. Equip automatic bleeder vents and rim space vents with gaskets and equip ladder wells with a sliding cover.

Equip external floating roof with a primary closure seal, consisting of a liquid mounted seal or a mechanical shoe seal, as defined in LAC 33:III.2103.C.1.a and b.

VOC. Total  $\geq$  95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year.

Which Months: All Year Statistical Basis: None specified

Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.

Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.1.1 - 7, as applicable.

**EQT 0063 WPT4-04 - PFO Storage Tank**

119 [40 CFR 63.1103(e)] Maintain records per 40 CFR 63.1109(d). [40 CFR 63.1103(e)]

120 [LAC 33:III.5109] Shall be equipped with submerged fill pipes.

**EQT 0064 WPT2-04 - PFO Loading Activities**

121 [40 CFR 63.1103(e)] Maintain records per 40 CFR 63.1109(d). [40 CFR 63.1103(e)]

122 [LAC 33:III.5109] No additional control is determined as MACT.

**EQT 0065 11-89 - Caustic Scrubber (Zimpro Vent)**

123 [40 CFR 61.342] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.

124 [40 CFR 63.1095] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.

125 [40 CFR 63.1103(e)(Table 7)g] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%. [40 CFR 63.1103(e)(Table 7)g]

126 [LAC 33:III.5109] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.

**EQT 0066 13-89 - Spent Caustic Tank 5407F**

127 [40 CFR 61.342] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.

**SPECIFIC REQUIREMENTS**

**AI ID:** 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro II/Petro II)  
**Activity Number:** PER20090006  
**Permit Number:** 0520-00145-V6  
**Air - Title V Regular Permit Renewal**

**EQT 0066 13-89 - Spent Caustic Tank 5407F**

- 128 [40 CFR 63.1095] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98% by July 12, 2005.  
 129 [40 CFR 63.1103(e)(Table 7)g] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98% by July 12, 2005. [40 CFR 63.1103(e)(Table 7)g]  
 130 [LAC 33:III.2|03.E.2] VOC, Total >= 90 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year.  
 Which Months: All Year Statistical Basis: None specified  
 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.  
 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2|03.H.3.a-e.  
 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2|03.1.1 - 7, as applicable.
- 134 [LAC 33:II.5|09] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.

**EQT 0067 15-89 - Pyrolysis Oil Storage Tank 8405F**

- 135 [40 CFR 63.1103(e)(Table 7)b] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%. [40 CFR 63.1103(e)(Table 7)b]  
 136 [LAC 33:II.5|09] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.

**EQT 0072 35-89 - SW Equalization Tank 8402F**

- 137 [LAC 33:II.5|09] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.

**EQT 0073 36-89 - Retention Equalization Tank 8460F**

- 138 [40 CFR 63.1095] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.  
 139 [40 CFR 63.1103(e)(Table 7)f] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%. [40 CFR 63.1103(e)(Table 7)f]  
 140 [LAC 33:II.5|09] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.

**EQT 0074 37-89 - Tar Tank 6411F**

- 141 [40 CFR 61.342] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.  
 142 [40 CFR 63.1095] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.  
 143 [40 CFR 63.1103(e)(Table 7)f] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%. [40 CFR 63.1103(e)(Table 7)f]  
 144 [LAC 33:II.5|09] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.

**EQT 0075 39-89 - Metering Skids**

**SPECIFIC REQUIREMENTS****AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro II/Petro II)****Activity Number: PER20090006****Permit Number: 0520-00145-V6****Air - Title V Regular Permit Renewal****EQT 0075 39-89 - Metering Skids**

Nonhalogenated hydrocarbon burning: Temperature  $\geq$  1600 F (870 degrees C) for 0.5 seconds or greater in a direct-flame afterburner or thermal incinerator. Other devices will be accepted provided 98 percent or greater VOC destruction or removal efficiency can be demonstrated, as determined in accordance with LAC 33:III.2115.J.1, or if emissions are reduced to 20 ppm by volume, whichever is less stringent.

Which Months: All Year Statistical Basis: None specified

Determine compliance with LAC 33:III.2115.A through G by applying the test methods specified in LAC 33:III.2115.J.1 through 5, as appropriate.

Demonstrate compliance with LAC 33:III.2115 as requested by DEQ.

Install and maintain monitors to accurately measure and record operational parameters of all required control devices as necessary to ensure the proper functioning of those devices in accordance with design specifications. Monitor and record at a minimum the parameters listed in LAC 33:III.2115.J.2.a through e.

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain the records specified in LAC 33:III.2115.K.1 through K.3. Maintain records on the premises for at least two years and make such information available to representatives of the Louisiana Department of Environmental Quality and the Environmental Protection Agency upon request.

**EQT 0076 41-89 - PY Oil Loading**

150 [LAC 33:III.5109] Vents shall be routed to the flare (EQT030).

**EQT 0085 BZSTPR - Benzene Stripper**

151 [LAC 33:III.5109] Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.

**EQT 0090 WPT21-96 - Spent Caustic Tank FB-1702**

152 [40 CFR 61.342] Vents shall be routed to the ground flare (EQT053).

153 [40 CFR 63.1095(b)] Vents shall be routed to the ground flare (EQT053). [40 CFR 63.1095(b)]

154 [40 CFR 63.1103(e)(Table 7)(f)] Vents shall be routed to the ground flare (EQT053). [40 CFR 63.1103(e)(Table 7)(g)]

155 [LAC 33:III.5109] Vents shall be routed to the ground flare (EQT053).

**EQT 0091 WPT22-96 - Wastewater Equalization Tank FB-1803**

156 [40 CFR 61.342] Vents shall be routed to the ground flare (EQT053).

157 [40 CFR 63.1095(b)] Vents shall be routed to the ground flare (EQT053). [40 CFR 63.1095(b)]

158 [40 CFR 63.1103(e)(Table 7)(f)] Vents shall be routed to the ground flare (EQT053). [40 CFR 63.1103(e)(Table 7)(g)]

159 [LAC 33:III.5109] Vents shall be routed to the ground flare (EQT053).

**SPECIFIC REQUIREMENTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro II/Petro II)  
**Activity Number:** PER20090006  
**Permit Number:** 0520-00145-V6  
**Air - Title V Regular Permit Renewal**

**EQT 0092 WPT23-96 - IGF Effluent Tank FB-1806**

- 160 [40 CFR 61.342] Vents shall be routed to the ground flare (EQT053).  
 161 [40 CFR 63.1095(b)] Vents shall be routed to the ground flare (EQT053). [40 CFR 63.1095(b)]  
 162 [40 CFR 63.1103(e)(Table 7)(f)] Vents shall be routed to the ground flare (EQT053). [40 CFR 63.1103(e)(Table 7)(g)]  
 163 [LAC 33:III.2103.E.1] VOC. Total  $\geq$  95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year.  
 Which Months: All Year Statistical Basis: None specified  
 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.  
 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.  
 Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable.  
 Vents shall be routed to the ground flare (EQT053).

**EQT 0093 WPT31-96 - Pyrolysis Gasoline Storage Tank FB2103**

- 168 [40 CFR 63.1103(e)(Table 7)(t)] Shall be vented to the ground flare (EQT053) by July 12, 2005. [40 CFR 63.1103(e)(Table 7)(b)]  
 169 [LAC 33:III.2103.H.3] Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.  
 170 [LAC 33:III.2103.I] Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable.  
 171 [LAC 33:III.5109] Shall be vented to the ground flare (EQT053).

**EQT 0095 PYGL - PY Gas Loading**

- 172 [40 CFR 63.1103(e)(Table 7)(e)] Vents shall be routed to the Co Products Flare (EQT035). [40 CFR 63.1103(e)(Table 7)(e)]  
 173 [LAC 33:III.2107.B] Equip with a vapor collection system consisting of, at a minimum, a vapor return line which returns all vapors displaced during loading to the VOC dispensing vessel or to a disposal system.  
 174 [LAC 33:III.2107.B] VOC. Total  $\geq$  90 % DRE, using a vapor disposal system.  
 Which Months: All Year Statistical Basis: None specified  
 Prevent spills during the attachment and disconnection of filling lines or arms. Equip loading and vapor lines with fittings which close automatically when disconnected, or equip to permit residual VOC in the loading line to discharge into a collection system or disposal or recycling system.  
 VOC. Total monitored by visual, audible, and/or olfactory during loading or unloading, to detect leaks.  
 Which Months: All Year Statistical Basis: None specified  
 Discontinue loading or unloading through the affected transfer lines when a leak is observed; do not resume loading or unloading until the observed leak is repaired.

**SPECIFIC REQUIREMENTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro II/Petro II)

Activity Number: PER20090006

Permit Number: 0520-00145-Y6

Air - Title V Regular Permit Renewal

**EQT 0095 PYGL - PY Gas Loading**

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2107.D.1 and 2.

Determine compliance with LAC 33:III.2107.B using the methods in LAC 33:III.2107.E.1 through 5, as appropriate.

Vents shall be routed to the Co Products Flare (EQT035).

**EQT 0101 CNTLVENT 3301E - Demethanizer Tower Vent**

Total Organic Compounds (less methane and ethane)  $\geq 98\%$  reduction by weight, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. Subpart NNN. [40 CFR 60.662(a)]

Which Months: All Year Statistical Basis: None specified

Notify the DEQ with the specific provisions of 40 CFR 60.662 (40 CFR 60.662(a), (b), or (c)) with which the facility operator has elected to comply. Submit the notification with the notification of initial start-up required in 40 CFR 60.7(a)(3). Notify the DEQ 90 days before implementing any change in the provision of 40 CFR 60.662 that the operator elects to comply with. Conduct the performance test specified by 40 CFR 60.664 within 180 days after the change. Subpart NNN. [40 CFR 60.665(a)]

Performance Test Data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain up-to-date, readily accessible records of the required compliance information listed in 40 CFR 60.665(b) through (j) as applicable measured during each performance test required under 40 CFR 60.8. Submit the same specified data in the reports of all subsequently required performance tests where either the emission control efficiency of a control device, outlet concentration of TOC, or the TRE index value of a vent stream from a recovery system is determined. Subpart NNN. [40 CFR 60.665(b)]

For a boiler or process heater submit a report containing the information in 40 CFR 60.665(b)(2)(i). Subpart NNN. [40 CFR 60.665(b)]

Submit report: Due semiannually. Submit initial report within 6 months after the initial start-up date. Include the information outlined in 40 CFR 60.665(l)(1) through (l)(7). Subpart NNN. [40 CFR 60.665(l)]

**EQT 0102 CNTLVENT OSPS - Oily Sludge Processing System**

Comply with the requirements of 40 CFR 63 Subpart XX. Subpart YY. [40 CFR 63.1103(e)(3)]

**EQT 0104 CNTLVENT DA-301 - Demethanizer Tower Vent**

Total Organic Compounds (less methane and ethane)  $\geq 98\%$  reduction by weight, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. Subpart NNN. [40 CFR 60.662(a)]

Which Months: All Year Statistical Basis: None specified

Notify the DEQ with the specific provisions of 40 CFR 60.662 (40 CFR 60.662(a), (b), or (c)) with which the facility operator has elected to comply. Submit the notification with the notification of initial start-up required in 40 CFR 60.7(a)(3). Notify the DEQ 90 days before implementing any change in the provision of 40 CFR 60.662 that the operator elects to comply with. Conduct the performance test specified by 40 CFR 60.664 within 180 days after the change. Subpart NNN. [40 CFR 60.665(a)]

**SPECIFIC REQUIREMENTS**

**AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro II/Petro II)**  
**Activity Number: PER20090006**  
**Permit Number: 0520-00145-V6**  
**Air - Title V Regular Permit Renewal**

**EQT 0104 CNTLVENT DA-301 - Demethanizer Tower Vent**

- 189 [40 CFR 60.665(b)] Performance Test Data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain up-to-date, readily accessible records of the required compliance information listed in 40 CFR 60.665(b) through (j) as applicable measured during each performance test required under 40 CFR 60.8. Submit the same specified data in the reports of all subsequently required performance tests where either the emission control efficiency of a control device, outlet concentration of TOC, or the TRE index value of a vent stream from a recovery system is determined. Subpart NNN. [40 CFR 60.665(b)]
- 190 [40 CFR 60.665(b)] For a boiler or process heater submit a report containing the information in 40 CFR 60.665(b)(2)(i). Subpart NNN. [40 CFR 60.665(b)]
- 191 [40 CFR 60.665(b)] Submit report: Due semiannually. Submit initial report within 6 months after the initial start-up date. Include the information outlined in 40 CFR 60.665(b)(1) through (b)(7). Subpart NNN. [40 CFR 60.665(b)]

**EQT 0105 WPT1-10 - Ethylene Furnace 6**

- 192 [LAC 33:III.1101.B] Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
- Which Months: All Year Statistical Basis: None specified
- Total suspended particulate <= 0.6 lb/MMBTU of heat input.
- Which Months: All Year Statistical Basis: None specified
- Equipment/operational data recordkeeping by electronic or hard copy once initially and annually. Record and retain at the site sufficient data to show annual potential sulfur dioxide emissions.

**FUG 0003 5-89 - Fugitives - Petro I Equipment Leaks**

- 195 [40 CFR 63.1019] Shall conduct a leak detection and repair program that meets requirements of 40 CFR 63 Subpart UU. Monitoring of flanges and other connectors shall be limited to those components in organic hazardous air pollutant (OHAP) service as this term is defined in 40 CFR 63.1020. [40 CFR 63.1019, 40 CFR 63.1103(e)(Table 7)(f), 40 CFR 60.480, 40 CFR 61.112, 40 CFR 61.240, LAC 33:III.2122, LAC 33:III.2122, LAC 33:III.5109]
- 196 [LAC 33:III.1513.C] Equip all rotary pumps and compressors handling volatile organic compounds having a true vapor pressure of 1.5 psia or greater at handling conditions with mechanical seals or other equivalent equipment.

**FUG 0004 WPT12-96 - Fugitives - Petro II Equipment Leaks**

- 197 [40 CFR 63.1019] Shall conduct a leak detection and repair program that meets requirements of 40 CFR 63 Subpart UU. Monitoring of flanges and other connectors shall be limited to those components in organic hazardous air pollutant (OHAP) service as this term is defined in 40 CFR 63.1020. [40 CFR 63.1019, 40 CFR 63.1103(e)(Table 7)(f), 40 CFR 60.480, 40 CFR 61.112, 40 CFR 61.240, LAC 33:III.2122, LAC 33:III.5109]
- 198 [LAC 33:III.2111] Equip all rotary pumps and compressors handling volatile organic compounds having a true vapor pressure of 1.5 psia or greater at handling conditions with mechanical seals or other equivalent equipment.

**GRP 0004 BOILERS - Boilers Cap**

**SPECIFIC REQUIREMENTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)  
**Activity Number:** PER20090006  
**Permit Number:** 0520-00145-V6  
**Air - Title V Regular Permit Renewal**

**GRP 0004 BOILERS - Boilers Cap**

Group Members: EQT 0043 EQT 0044

- 199 [40 CFR 52.] Nitrogen oxides <= 0.095 lb/MMBTU Using Low NOX burners and FGR (PSD-LA-595).  
 Which Months: All Year Statistical Basis: Thirty-day rolling average  
 Good design, proper operating practice and PEMS are determined as BACT for NOX and CO emissions (PSD-LA-595). [40 CFR 52, LAC 33:III.509]
- 200 [40 CFR 52.] Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: None specified
- 201 [LAC 33:III.1101.B] Total suspended particulate <= 0.6 lb/MMBTU of heat input.  
 Which Months: All Year Statistical Basis: None specified
- 202 [LAC 33:III.1313.C] Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request.
- 203 [LAC 33:III.1513]

**CRG 0001 Petro I Furnaces - Petro I Furnaces**

Group Members: EQT 0018 EQT 0019 EQT 0020 EQT 0021 EQT 0022 EQT 0023

- 204 [40 CFR 52.] Oxygen >= 2.0 percent, in combination with good design, proper operating practice and PEMS are determined as BACT for NOX and CO emissions (PSD-LA-554(M2)). [40 CFR 52, LAC 33:III.509]
- 205 [40 CFR 52.] Nitrogen oxides <= 0.16 lb/MMBTU Using Low NOX burners (PSD-LA-554(M2)). [40 CFR 52, LAC 33:III.509]
- 206 [LAC 33:III.1101.B] Which Months: All Year Statistical Basis: Thirty-day rolling average  
 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.  
 Which Months: All Year Statistical Basis: None specified
- 207 [LAC 33:III.1313.C] Total suspended particulate <= 0.6 lb/MMBTU of heat input.  
 Which Months: All Year Statistical Basis: None specified

**CRG 0003 Petro 2 Furnaces - Petro 2 Furnaces**

Group Members: EQT 0038 EQT 0039 EQT 0040 EQT 0041 EQT 0042

- 208 [40 CFR 52.] Nitrogen oxides <= 0.159 lb/MMBTU Using Low NOX burners (PSD-LA-595). [40 CFR 52, LAC 33:III.509]  
 Which Months: All Year Statistical Basis: Thirty-day rolling average

**SPECIFIC REQUIREMENTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)  
**Activity Number:** PER20090006  
**Permit Number:** 0520-00145-V6  
**Air - Title V Regular Permit Renewal**

**CRG 0003 Petro 2 Furnaces - Petro 2 Furnaces**

209	[40 CFR 52.]	Oxygen >= 2.5 percent, in combination with good design, proper operating practice and PEMS are determined as BACT for NOX and CO emissions (PSD-LA-595). Which Months: All Year Statistical Basis: Thirty-day rolling average Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. Which Months: All Year Statistical Basis: None specified Total suspended particulate <= 0.6 lb/MMBTU of heat input. Which Months: All Year Statistical Basis: None specified
210	[LAC 33:II.11.1101.B]	Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.
213	[40 CFR 63.1095]	Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.
214	[40 CFR 63.1103(e)(Table 7)(e)]	Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%. [40 CFR 63.1103(e)(Table 7)(e)]
215	[LAC 33:II.5109]	Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.

**CRG 0005 Wastewater Treatment Components - Petro 1**

Group Members: EQT 0068EQT 0069EQT 0070EQT 0071EQT 0072EQT 0073EQT 0074EQT 0075EQT 0076EQT 0077EQT 0078EQT 0079EQT 0080EQT 0081EQT 0082

212	[40 CFR 61.342]	Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.
213	[40 CFR 63.1095]	Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.
214	[40 CFR 63.1103(e)(Table 7)(e)]	Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%. [40 CFR 63.1103(e)(Table 7)(e)]
215	[LAC 33:II.5109]	Vents shall be routed to the Thermal Oxidizer (EQT037) with DRE >98%.

**CRG 0006 Wastewater Treatment - Wastewater Treatment Units - Petro 2**

Group Members: EQT 0088EQT 0089EQT 0090EQT 0091

216	[40 CFR 61.342]	Vents shall be routed to the ground flare (EQT053).
217	[40 CFR 63.1095(b)]	Vents shall be routed to the ground flare (EQT053). [40 CFR 63.1095(b)]
218	[40 CFR 63.1103(e)(Table 7)(g)]	Vents shall be routed to the ground flare (EQT053). [40 CFR 63.1103(e)(Table 7)(g)]
219	[LAC 33:II.2(109 A.3)]	Vents shall be routed to the ground flare (EQT053).
220	[LAC 33:II.5109]	Vents shall be routed to the ground flare (EQT053).

**UNF 0001 Facility - Petro I and II Units**

221	[40 CFR 52.21]	Comply with the requirements of PSD-LA-554(M3) and PSD-LA-595(M2). This permit includes provisions of the Prevention of Significant Deterioration (PSD) reviews from PSD-LA-554(M3) and PSD-LA-595(M2). All affected facilities shall comply with all applicable provisions in 40 CFR 60 Subpart A. All affected facilities shall comply with all applicable provisions in 40 CFR 61 Subpart A. All affected facilities shall comply with all applicable provisions in 40 CFR 63 Subpart A - General Provisions.
222	[40 CFR 60]	
223	[40 CFR 61]	
224	[40 CFR 63.1 - 19]	

**SPECIFIC REQUIREMENTS****AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)****Activity Number: PER20090006****Permit Number: 0520-00145-V6****Air - Title V Regular Permit Renewal****UNF 0001 Facility - Petro I and II Units**

- 225 [LAC 33:III.1103] Emissions of smoke which pass onto or across a public road and create a traffic hazard by impairment of visibility as defined in LAC 33:III.111 or intensify an existing traffic hazard condition are prohibited.
- 226 [LAC 33:III.1109.B] Outdoor burning of waste material or other combustible material is prohibited.
- 227 [LAC 33:III.1303.B] Emissions of particulate matter which pass onto or across a public road and create a traffic hazard by impairment of visibility or intensify an existing traffic hazard condition are prohibited.
- 228 [LAC 33:III.2113.A] Maintain best practical housekeeping and maintenance practices at the highest possible standards to reduce the quantity of organic compounds emissions. Good housekeeping shall include, but not be limited to, the practices listed in LAC 33:III.2113.A.1-5.
- 229 [LAC 33:III.219] Failure to pay the prescribed application fee or annual fee as provided herein, within 90 days after the due date, will constitute a violation of these regulations and shall subject the person to applicable enforcement actions under the Louisiana Environmental Quality Act including, but not limited to, revocation or suspension of the applicable permit, license, registration, or variance.
- 230 [LAC 33:III.2901.D] Discharges of odorous substances at or beyond property lines which cause a perceived odor intensity of six or greater on the specified eight point butanol scale as determined by Method 41 of LAC 33:III.2901.G are prohibited.
- 231 [LAC 33:III.2901.F] If requested to monitor for odor intensity, take and transport samples in a manner which minimizes alteration of the samples either by contamination or loss of material. Evaluate all samples as soon after collection as possible in accordance with the procedures set forth in LAC 33:III.2901.G.
- 232 [LAC 33:III.501.B.4] The owner or operator of any source which is not a major source may apply for an exemption from the permitting requirements of this Chapter provided each of the following criteria are met: i. the source emits and has the potential to emit no more than 5 tons per year of any regulated air pollutant; ii. the source emits and has the potential to emit less than the minimum emission rate listed in LAC 33:III.5112, Table 51.1, for each Louisiana toxic air pollutant; iii. no enforceable permit conditions are necessary to ensure compliance with any applicable requirement; and iv. no public notice is required for any permitting or other activity at the source. Any source to which an exemption is granted under this Paragraph shall be operated in accordance with any terms stated in the exemption and upon which the decision to grant the exemption was based. Failure to operate the source in accordance with the terms of the exemption may terminate such exemption and shall constitute a violation of the general duty to operate under a permit established pursuant to Subsection C of this Section.
- 233 [LAC 33:III.501.C.1] Submit a timely and complete permit application to the Office of Environmental Services, Air Permits Division as required in accordance with the procedures in LAC 33:III. Chapter 5.
- 234 [LAC 33:III.507.A.1.a] Any major source as defined in LAC 33:III.502 is designated a Part 70 source and is required to obtain a permit which will meet the requirements of LAC 33:III.507.
- 235 [LAC 33:III.507.E.4] Any permit application to renew an existing permit shall be submitted at least six months prior to the date of permit expiration, or at such earlier time as may be required by the existing permit or approved by the permitting authority. In no event shall the application for permit renewal be submitted more than 18 months before the date of permit expiration.
- 236 [LAC 33:III.509.I.1] No major stationary source or major modification to which the requirements of this Part apply shall begin actual construction without a permit issued under this Section.
- 237 [LAC 33:III.5105.A.1] Do not construct or modify any stationary source subject to any standard set forth in LAC 33:III. Chapter 51. Subchapter A, without first obtaining written authorization from DEQ in accordance with LAC 33:III. Chapter 51. Subchapter A, after the effective date of the standard.

**SPECIFIC REQUIREMENTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro I/Petro II)  
**Activity Number:** PER20090006  
**Permit Number:** 0520-00145-V6  
**Air - Title V Regular Permit Renewal**

**UNF 0001 Facility - Petro I and II Units**

- 238 [LAC 33:III.5105.A.2] Do not cause a violation of any ambient air standard listed in LAC 33:III.Table 51.2, unless operating in accordance with LAC 33:III.5109.B.  
 Do not build, erect, install, or use any article, machine, equipment, process, or method, the use of which conceals an emission that would otherwise constitute a violation of an applicable standard.
- 239 [LAC 33:III.5105.A.3] Do not fail to keep records, notify, report or revise reports as required under LAC 33:III.Chapter 51.Subchapter A.
- 240 [LAC 33:III.5105.A.4] Include a certification statement with the annual emission report and revisions to any emission report that attests that the information contained in the emission report is true, accurate, and complete, and that is signed by a responsible official, as defined in LAC 33:III.502. Include the full name of the responsible official, title, signature, date of signature and phone number of the responsible official.
- 241 [LAC 33:III.5107.A.2] Submit Annual Emissions Report: Due annually, by the 31st of March unless otherwise directed by DEQ, to the Office of Environmental Assessment in a format specified by DEQ. Identify the quantity of emissions in the previous calendar year for any toxic air pollutant listed in Table 51.1 or Table 51.3.
- 242 [LAC 33:III.5107.A.] Submit notification: Due to the Department of Public Safety 24-hour Louisiana Emergency Hazardous Materials Hotline at (225) 925-6595 immediately, but in no case later than 1 hour, after any discharge of a toxic air pollutant into the atmosphere that results or threatens to result in an emergency condition (a condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water or air environment, or cause severe damage to property).
- 243 [LAC 33:III.5107.B.1] Submit notification: Due to SPOC, except as provided in LAC 33:III.5107.B.6, no later than 24 hours after the beginning of any unauthorized discharge into the atmosphere of a toxic air pollutant as a result of bypassing an emission control device, when the emission control bypass was not the result of an upset, and the quantity of the unauthorized bypass is greater than or equal to the lower of the Minimum Emission Rate (MER) in LAC 33:III.5112, Table 51.1, or a reportable quantity (RQ) in LAC 33:1.3931, or the quantity of the unauthorized bypass is greater than one pound and there is no MER or RQ for the substance in question. Submit notification in the manner provided in LAC 33:1.3923.
- 244 [LAC 33:III.5107.B.2] Submit notification: Due to SPOC, except as provided in LAC 33:III.5107.B.6, immediately, but in no case later than 24 hours after any unauthorized discharge of a toxic air pollutant into the atmosphere that does not cause an emergency condition, the rate or quantity of which is in excess of that allowed by permit, compliance schedule, or variance, or for upset events that exceed the reportable quantity in LAC 33:1.3931. Submit notification in the manner provided in LAC 33:1.3923.
- 245 [LAC 33:III.5107.B.3] Submit written report: Due by certified mail to SPOC within seven calendar days of learning of any such discharge or equipment bypass as referred to in LAC 33:III.5107.B.1 through B.3. Include the information specified in LAC 33:III.5107.B.4.a.i through B.4.a.viii.
- 246 [LAC 33:III.5107.B.4] Report all discharges to the atmosphere of a toxic air pollutant from a safety relief device, a line or vessel rupture, a sudden equipment failure, or a bypass of an emission control device, regardless of quantity, IF THEY CAN BE MEASURED AND CAN BE RELIABLY QUANTIFIED USING GOOD ENGINEERING PRACTICES, to DEQ along with the annual emissions report and where otherwise specified. Include the identity of the source, the date and time of the discharge, and the approximate total loss during the discharge.
- 247 [LAC 33:III.5107.B.5] Submit notification in writing: Due to SPOC not more than 60 days prior to initial start-up. Submit the anticipated date of the initial start-up.
- 248 [LAC 33:III.5113.A.1] Submit notification in writing: Due to SPOC within 10 working days after the actual date of initial start-up of the source. Submit the actual date of initial start-up of the source.
- 249 [LAC 33:III.5113.A.2]

**SPECIFIC REQUIREMENTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro II/Petro II)  
**Activity Number:** PER20090006  
**Permit Number:** 0520-00145-V6  
**Air - Title V Regular Permit Renewal**

**UNF 0001 Facility - Petro I and II Units**

- 250 [LAC 33:III.511] Submit notification: Due to the permitting authority prior to the initiation of any project which will result in emission reductions. Include in the notification a description of the proposed action, a location map, a description of the composition of air contaminants involved, the rate and temperature of the emissions, the identity of the sources involved and the change in emissions. Make any appropriate permit revision reflecting the emission reduction no later than 180 days after commencement of operation and in accordance with the procedures of LAC 33:III Chapter 5.
- 251 [LAC 33:III.517.A.1] Submit permit application: Due prior to commencement of construction, reconstruction, or modification of the source, for new or modified sources. Do not commence construction, reconstruction, or modification of any source required to be permitted under LAC 33:III Chapter 5 prior to approval by the permitting authority.
- 252 [LAC 33:III.517.A.2] Submit permit application: Due by the date established for submittal in accordance with LAC 33:III.507.C. The permit application is for an initial permit to be issued in accordance with LAC 33:III.507. Provide a copy of each permit application pertaining to a major Part 70 source to EPA at the time of application submittal to the permitting authority.
- 253 [LAC 33:III.517.A.3] Submit permit application: Due by the date established by the permitting authority. The permit application is for any source for which grandfathered status has expired due to a change in ownership.
- 254 [LAC 33:III.517.B.1] Any application form, report, or compliance certification submitted under this Chapter shall contain certification by a responsible official of truth, accuracy, and completeness. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information contained in the application are true, accurate, and complete.
- 255 [LAC 33:III.517.C] Submit supplementary facts or corrected information: Due promptly upon becoming aware of failure to submit or incorrect submittal regarding permit applications. In addition, provide information as necessary to address any requirements that become applicable to the source after the date of filing a complete application but prior to release of a proposed permit.
- 256 [LAC 33:III.517.D] Submit applications for permits in accordance with forms and guidance provided by the DEQ. At a minimum, each permit application submitted under LAC 33:III Chapter 5 shall contain the information specified in LAC 33:III.517.D, subparagraphs 1-18.
- 257 [LAC 33:III.517.E] In addition to those elements listed under LAC 33:III.517.D, include in each application pertaining to a Part 70 source the information specified in LAC 33:III.517.E, Subparagraphs 1-8.
- 258 [LAC 33:III.517.G] Submit notification: Due within 90 days after any change in ownership of the source. Provide the notification in accordance with forms or guidance from the permitting authority and in accordance with requirements of LAC 33:I.1701.
- 259 [LAC 33:III.5609.A.1.b] Activate the preplanned abatement strategy listed in LAC 33:III.5611.Table 5 when the administrative authority declares an Air Pollution Alert.
- 260 [LAC 33:III.5609.A.2.b] Activate the preplanned strategy listed in LAC 33:III.5611.Table 6 when the administrative authority declares an Air Pollution Warning.
- 261 [LAC 33:III.5609.A.3.b] Activate the preplanned abatement strategy listed in LAC 33:III.5611.Table 7 when the administrative authority declares an Air Pollution Emergency.
- 262 [LAC 33:III.5609.A] Prepare standby plans for the reduction of emissions during periods of Air Pollution Alert, Air Pollution Warning and Air Pollution Emergency. Design standby plans to reduce or eliminate emissions in accordance with the objectives as set forth in LAC 33:III.5611.Tables 5, 6, and 7.
- 263 [LAC 33:III.5901.A] Comply with the provisions in 40 CFR 68, except as specified in LAC 33:III.5901.
- 264 [LAC 33:III.5907] Identify hazards that may result from accidental releases of the substances listed in 40 CFR 68.130, Table 59.0 of LAC 33:III.5907, or Table 59.1 of LAC 33:III.5913 using appropriate hazard assessment techniques, design and maintain a safe facility, and minimize the off-site consequences of accidental releases of such substances that do occur.

**SPECIFIC REQUIREMENTS**

AI ID: 6164 - Westlake Petrochemicals LLC - Ethylene Manufacturing Complex (Petro II/Petro II)

Activity Number: PER20090006

Permit Number: 0520-00145-V6

Air - Title V Regular Permit Renewal

**UNF 0001 Facility - Petro I and II Units**

265 [LAC 33:III 5911.A]

Submit registration: Due January 31, 1998, or within 60 days after the source becomes subject to LAC 33:III, Chapter 59, whichever is later. Include the information listed in LAC 33:III.5911.B, and submit to the Department of Environmental Quality, Office of Environmental Compliance, Surveillance Division.

266 [LAC 33:III.5911.C]

Submit amended registration: Due to the Department of Environmental Quality, Office of Environmental Compliance, Surveillance Division, within 60 days after the information in the submitted registration is no longer accurate.

267 [LAC 33:III.919.D]

Submit Emission Inventory (EI)/Annual Emissions Statement: Due annually, by the 31st of March for the period January 1 to December 31 of the previous year. Submit emission inventory data in the format specified by the Office of Environmental Assessment, Environmental Evaluation Division. Include all data applicable to the emissions source(s), as specified in LAC 33:III.919.A-D.